



U.S. Environmental Protection Agency  
Region 8  
Technical and Management Services

Laboratory Services Program

Certificate of Analysis

Ref: 8TMS-L

MEMORANDUM

Date: 12/14/16

Subject: Analytical Results--- **Bonita Peak\_Water 4\_OCT\_2016\_A128 / A-128**

From: Don Goodrich; EPA Region 8 Analytical Chemistry WAM

To: Rebecca Thomas  
Superfund  
1595 Wynkoop Street

Received Sample Set(s), [Work Order : Date Received]:

[ C161102 : 10/27/2016 ]

Attached are the analytical results for the samples received from the Bonita Peak\_Water 4\_OCT\_2016\_A128 sampling event, according to TDF A-128. All analyses were performed within their method specified holding times unless otherwise noted in the following narrative.

These samples were prepared, analyzed, and verified by the Environmental Services Assistance Team Laboratory (ESAT) according to the requirements of the Technical Direction Form (TDF).

Note: The laboratory herewith transmits this deliverable to the program/project partner for determination of "final data usability" which may include data validation and data quality assessment per and in accordance with EPA QA/G-8, *Guidance on Environmental Data Verification and Data Validation*, November 2002, EPA/240/R-02/004. Laboratory data qualifiers are applied based on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004, referred to as "NFGI".

Laboratory policy is to dispose of any remaining sample 60 days after data analysis packages are delivered to EPA. If you would like the laboratory to retain the samples for a period longer than 60 days, please contact Don Goodrich within the 60 day period at (303) 312-6687.

**Case Narrative****C161102**

Quality Assessment: Unless indicated by exception, the QA/QC associated with this sample set produced data within the TDF-specified criteria.

Holding Times: Most samples were received past holding times for anions. These results were qualified "J" as estimated. All other samples were analyzed within their method specified technical holding time(s).

1. Initial and Continuing calibration blanks (ICBs and CCBs).  
Exceptions: None.
2. Preparation (PB) / Method blanks (MB)  
Exceptions: In ICP-MS batch 1612040, nickel was detected in the BLK just above the PQL. As a result, the reporting limit for nickel was raised to 2.0 ug/L. No qualifiers were assigned.
3. Interference Checks (ICSA / ICSAB) for ICP-MS and ICP-OE analyses only.  
Exceptions: None.
4. Initial and Continuing calibration verification analyses (ICVs, SCVs and CCVs).  
Exceptions: None.
5. Laboratory Control Sample (LCS) or second source analysis or SRM.  
Exceptions: None.
6. Laboratory Fortified blank (LFB) / Blank spike (BS), same source as used for the matrix spikes.  
PBS performed with analyses/methods requiring preparation or digestion prior to analysis.  
Exceptions: None.
7. Contract Reporting Detection Limit Standard, labeled as CRA, CRDL or CRL.  
Exceptions: None.
8. Laboratory Duplicate (DUP). "Source" identifies field sample duplicated in the laboratory. If either the "source" or the duplicate result is <5X the reporting limit, the %D limit of 20% does not apply.  
Exceptions: None.
9. Laboratory Matrix Spike (MS) and spike duplicate (MSD). "Source" defines original field sample fortified prior to analysis. Percent recovery (%R) limits do not apply when sample concentration(s) exceed the corresponding analyte spike level by a factor of 4 or greater.  
Exceptions: None.
10. Serial Dilution sample analysis (SRD). "Source" is parent field sample diluted 1:5 in the laboratory. Performed for ICP-OE and ICP-MS metals analyses. Percent difference (%D) limits do not apply when analyte concentration(s) are below 50x the source sample's MDL (or 10x it's PQL).  
Exceptions: In ICP-MS sequence 1612075, lead recovered high in the SRD. As a result, the source sample was qualified "J" as estimated for lead.
11. Internal standards, criteria specified for ICP-MS analyses only, monitored at the instrument.  
Exceptions: None.
12. Any calibration using more than two-points produced a correlation coefficient equal to or greater than 0.995.  
Exceptions: None.

**Acronyms and Definitions:**

ESAT	Environmental Services Assistance Team
J	Data Estimated qualifier (also applied to all data less than PQL, greater than or equal to MDL)
MDL	Method Detection Limit
PQL	Practical Quantitation Limit, also known as reporting limit.
RPD	Relative Percent Difference (difference divided by the mean)
%D	Percent difference, serial dilution criteria unit, difference divided by the original result.
%R	Percent recovery, analyzed (less sample contribution) divided by true value
<	Analyte NOT DETECTED at or above the Method Detection Limit (MDL)
mg/L	Parts per million (milligrams per liter). Solids equivalent = mg/Kg.
ug/L	Parts per billion (micrograms per liter). Solids equivalent = ug/Kg.
NR	No Recovery (matrix spike) - Often seen for calcium/magnesium when their concentration exceeds the spike level by > 4x.
NFGI	USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004
RE	Sample Re-analysis. Usually seen on raw data and sequences for required sample dilutions due to over-range analytes.
U	Analyte not detected at or above MDL qualifier
D	Diluted value qualifier.

**Method(s) Summary:**

As defined in the Technical Direction Form (TDF), some or all of the methods listed below were used for the determination of the reported target analytes.

From EPA's *Methods for the Determination of Metals in Environmental Samples*, Supplement I, May 1994, dissolved, total, and/or total recoverable metals were determined by:

- Method 200.7 / 6010B using a PE Optima ICP -OE (ICP).
- Method 200.8 / 6020 using a Perkin -Elmer Elan 6000 ICP-MS.
- Method 200.2 for total recoverable metals (only) digestion.
- Method 245.1 using a Perkin -Elmer FIMS CVAA (aqueous mercury only).

From *Standard Methods for the Examination of Water and Wastewater*, 18<sup>th</sup> Edition, 1992, Method 2340B was used for the calculated hardness determination. Hardness is reported as mg (milligram) equivalent CaCO<sub>3</sub> per liter (L) determined as follows:

$$\text{Calculated hardness} = 2.497 * (\text{Calcium, mg/L}) + 4.118 * (\text{Magnesium, mg/L}).$$

From EPA's *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW -846*,

- Method 3015A was used for microwave assisted total metals digestion.
- Method 7473 was used for mercury in solids .

From EPA's *Determination of Inorganic Anions by Ion Chromatography*, Revision 2.1, 1993, Method 300.0 was used to determine the anions.

From EPA's *Methods for Chemical Analysis of Water and Wastes*, March 1983:

- Method 310.1 was followed for the alkalinity determination.
- Method 160.1 was followed for gravimetric total dissolved solids (TDS) determination.
- Method 160.2 was used for gravimetric total suspended solids (TSS) determination.
- Method 415.3 was used for total organic carbon (TOC) determination using either an Apollo 9000 or Phoenix 8000 Non-Dispersive IR (NDIR) system. Also known as dissolved organic carbon (DOC) when performed on the dissolved sample fraction.

The quality control procedures listed in the TDF request were utilized by ESAT to verify accuracy of the results and to evaluate any matrix interferences.

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS01-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/22/16 13:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-03 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>204</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>12800</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>1580</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>36.4</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>5920</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>52.1</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>297</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>0.741</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>4.84</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Lead</b>	<b>18.3</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	<b>Nickel</b>	<b>2.68</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>38</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS02-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/22/16 13:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-06 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	55800		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	5550		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	5.77		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	3690		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	363		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	94.9		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	0.598	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	0.258		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	1.20	J	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	1.10		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	162		mg/L	2	1	12/12/2016	SV	1612055

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS03-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 09/22/16 14:35  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-09 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>28.4</b>	J	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>59400</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>5710</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>423</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>4500</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>381</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>1480</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	<b>Antimony</b>	<b>2.02</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>3.78</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	<b>Chromium</b>	<b>1.01</b>	J	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>33.7</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Lead</b>	<b>3.13</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>172</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS04-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/22/16 15:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-12 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	35400		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	2460		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	4880		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	190		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	130		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	0.202		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	1.20	J	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	0.611	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	0.124	J	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	98		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS05-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/22/16 16:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-15 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>339</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>42000</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>4270</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>7.76</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>14900</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>141</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>14200</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>7.66</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>8.71</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Lead</b>	<b>0.280</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	<b>Nickel</b>	<b>5.06</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Selenium</b>	<b>1.34</b>	J	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>122</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS06-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/23/16 10:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-18 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	14800		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	857		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	12.9		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	2140		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	102		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	41		mg/L	2	1	12/12/2016	SV	1612055

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS07-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 09/23/16 11:00  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-21 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	22700		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	1090		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	5970		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	199		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	1.38		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	61		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS08-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/26/16 14:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-24 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	35600		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	4390		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	122		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	1210		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	365		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	15.7	J	ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	0.101	J	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	0.807	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	107		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS09-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/26/16 15:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-27 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>34.7</b>	J	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>32800</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>3750</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>4140</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>252</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>40.5</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>0.303</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>97</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS10-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/26/16 16:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-30 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>73.6</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>27800</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>2730</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>5.01</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>6300</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>189</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>77.6</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>0.261</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>0.652</b>	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Lead</b>	<b>0.213</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>81</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS10-SS-30-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/26/16 16:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-33 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>65.6</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>27700</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>2730</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>4.74</b>	J	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>6420</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>191</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>79.6</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>0.230</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>0.731</b>	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Lead</b>	<b>0.172</b>	J	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>80</b>		mg/L	2	1	12/12/2016	SV	1612055

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Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS11-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/26/16 17:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-36 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>9420</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>150000</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>20900</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>5120</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>9740</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>1380</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>748</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>4.39</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>40.3</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Lead</b>	<b>16.4</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	<b>Nickel</b>	<b>21.5</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>460</b>		mg/L	2	1	12/12/2016	SV	1612055

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Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS12-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 09/26/16 17:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-39 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	1240		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	106000		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	706		ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	12600		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	1370		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	7890		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	609		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	909		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	4.05		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	23.0		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	5.37		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	4.56		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	316		mg/L	2	1	12/12/2016	SV	1612055

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TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS13-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-42 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	34.8	J	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	37800		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	1930		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	12.2		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	3170		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	265		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	18.3	J	ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	1.07		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	102		mg/L	2	1	12/12/2016	SV	1612055

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS14-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/03/16 12:30  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-45 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	37100		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	1750		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	6590		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	308		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	100		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS15-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 13:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-48 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>21.3</b>	J	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>34000</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>2800</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>12.5</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>7730</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>237</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>0.964</b>	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>96</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS16-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 14:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-51 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1330</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>38000</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>3990</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>744</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>33700</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>357</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>222</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>0.373</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>4.77</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	<b>Nickel</b>	<b>1.97</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>111</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS17-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 14:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-54 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1860</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Calcium</b>	<b>41600</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Magnesium</b>	<b>5340</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	<b>Manganese</b>	<b>1170</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Silica (SiO2)</b>	<b>37500</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	<b>Strontium</b>	<b>406</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	<b>Zinc</b>	<b>407</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	<b>Cadmium</b>	<b>2.18</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	<b>Copper</b>	<b>8.17</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	<b>Nickel</b>	<b>2.77</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	<b>Hardness</b>	<b>126</b>		mg/L	2	1	12/12/2016	SV	1612055

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS18-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 15:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-57 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	<b>5060</b>		ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	<b>51700</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	<b>9000</b>		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	<b>2620</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	<b>35600</b>		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	<b>467</b>		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	<b>1630</b>		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	<b>9.46</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	<b>37.8</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	<b>0.235</b>		ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	<b>9.81</b>		ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	<b>166</b>		mg/L	2	1	12/12/2016	SV	1612055

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TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS19-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-60 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612055
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Calcium	24000		ug/L	100	1	12/12/2016	SV	1612055
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612055
200.7	Magnesium	1820		ug/L	100	1	12/12/2016	SV	1612055
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Silica (SiO2)	6510		ug/L	250	1	12/12/2016	SV	1612055
200.7	Strontium	220		ug/L	2.00	1	12/12/2016	SV	1612055
200.7	Zinc	84.7		ug/L	10.0	1	12/12/2016	SV	1612055
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Cadmium	0.173	J	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Copper	0.924	J	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612056
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612056
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612056
2340B	Hardness	67		mg/L	2	1	12/12/2016	SV	1612055

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS19-SS-30-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/03/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-63 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	23800		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	1780		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	6450		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	218		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	84.6		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	0.185	J	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	0.949	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	67		mg/L	2	1	12/12/2016	SV	1612058

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TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS20-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-66 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>623</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>7750</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>2340</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>193</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>5320</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>39.0</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>69.1</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>0.439</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>0.992</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>0.739</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>3.53</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>29</b>		mg/L	2	1	12/12/2016	SV	1612058

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A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS21-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 12:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-69 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>182</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>4430</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>572</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>22.3</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>5640</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>25.3</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>115</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>0.607</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>2.28</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>0.846</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>0.696</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>13</b>		mg/L	2	1	12/12/2016	SV	1612058

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TDF #:

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS22-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 12:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-72 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>97.2</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>17000</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>1770</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>2.39</b>	J	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>3590</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>79.2</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>244</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>0.991</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>1.62</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>0.634</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>50</b>		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS23-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 13:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-75 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>360</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>19500</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>2570</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>9.54</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>6870</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>94.6</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>213</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>0.626</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>1.22</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>1.41</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>59</b>		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS24-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 13:40  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-78 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>21.1</b>	J	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>82700</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>5970</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>3050</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>846</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>12.8</b>	J	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>0.690</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>231</b>		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS25-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 14:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-81 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	50000		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	3100		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	2390		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	398		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	11.2	J	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	0.564	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	138		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS26-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 15:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-84 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>688</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>33300</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>3500</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>506</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>6750</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>116</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>687</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>2.83</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>59.3</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>8.34</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>1.20</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>98</b>		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS27-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-87 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>6540</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>78800</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>14300</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>9780</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>10700</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>195</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>4820</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>35.7</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>464</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>2.31</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>19.8</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Selenium</b>	<b>1.40</b>	J	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>256</b>		mg/L	2	1	12/12/2016	SV	1612058

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS27-SS-90-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/04/16 16:00  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-90 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	< 1000	U	ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	< 10.0	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	< 2		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS28-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 16:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-93 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>22.4</b>	J	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>7760</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>581</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>9.62</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>5370</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>37.9</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>18.7</b>	J	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>0.585</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>0.344</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>22</b>		mg/L	2	1	12/12/2016	SV	1612058

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Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS29-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/04/16 17:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-96 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>261</b>		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>41900</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>4140</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>102</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>6990</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>218</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>1020</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>3.40</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>3.08</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>2.12</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>122</b>		mg/L	2	1	12/12/2016	SV	1612058

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS30-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/05/16 10:50  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-99 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	15300		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	720		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	4410		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	196		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	41		mg/L	2	1	12/12/2016	SV	1612058

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS31-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/05/16 11:20  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-AC A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	25000		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	1130		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	3930		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	203		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	67		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS32-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AF A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	66000		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	4910		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	2550		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	666		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	1.05	J	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	185		mg/L	2	1	12/12/2016	SV	1612058

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS33-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 12:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AI A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	4030		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	352		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	11.8		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	627	J	ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	47.2		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	19.4	J	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	0.718	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	0.132	J	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	12		mg/L	2	1	12/12/2016	SV	1612058

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS34-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AL A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	323		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	5850		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	694		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	344		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	2220		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	48.4		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	865		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	3.17		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	47.3		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	2.29		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	2.32		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	17		mg/L	2	1	12/12/2016	SV	1612058

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS34-SS-30-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AO A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	324		ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Calcium	5860		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	107	J	ug/L	100	1	12/12/2016	SV	1612058
200.7	Magnesium	694		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	339		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Silica (SiO2)	2190		ug/L	250	1	12/12/2016	SV	1612058
200.7	Strontium	48.1		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	Zinc	857		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	3.19		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Copper	45.5		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Lead	2.29		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	1.92		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	Hardness	18		mg/L	2	1	12/12/2016	SV	1612058

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS35-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 13:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AR A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>33.9</b>	J	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>56100</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>5150</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>3730</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>531</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>17.0</b>	J	ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>0.688</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>0.115</b>	J	ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>161</b>		mg/L	2	1	12/12/2016	SV	1612058

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS36-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 15:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AU A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>41.6</b>	J	ug/L	20.0	1	12/12/2016	SV	1612058
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Calcium</b>	<b>17700</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Magnesium</b>	<b>1150</b>		ug/L	100	1	12/12/2016	SV	1612058
200.7	<b>Manganese</b>	<b>7.18</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Silica (SiO2)</b>	<b>4190</b>		ug/L	250	1	12/12/2016	SV	1612058
200.7	<b>Strontium</b>	<b>92.9</b>		ug/L	2.00	1	12/12/2016	SV	1612058
200.7	<b>Zinc</b>	<b>936</b>		ug/L	10.0	1	12/12/2016	SV	1612058
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Cadmium</b>	<b>3.11</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	<b>Copper</b>	<b>35.7</b>		ug/L	0.500	1	12/12/2016	SV	1612059
200.8	<b>Lead</b>	<b>48.2</b>		ug/L	0.100	1	12/12/2016	SV	1612059
200.8	<b>Nickel</b>	<b>0.586</b>	J	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/12/2016	SV	1612059
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/12/2016	SV	1612059
2340B	<b>Hardness</b>	<b>49</b>		mg/L	2	1	12/12/2016	SV	1612058

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## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS37-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/05/16 16:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AX A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	<b>5960</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	<b>100000</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	<b>23400</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	<b>3150</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	<b>11700</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	<b>628</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	<b>738</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	<b>4.57</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	<b>186</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	<b>4.62</b>	J	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	<b>21.9</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	<b>346</b>		mg/L	2	1	12/12/2016	SV	1612061

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS38-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/06/16 09:40  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-BA A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	40400		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	2740		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	3440		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	817		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	112		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS39-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 10:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BD A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>965</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>18100</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>1900</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>461</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>7190</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>80.9</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>1490</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>5.12</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>128</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Lead</b>	<b>3.44</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	<b>Nickel</b>	<b>2.40</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>53</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS40-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BG A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1100</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>8140</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>1550</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>6190</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>10200</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>32.8</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>2410</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>6.77</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>221</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Lead</b>	<b>0.492</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	<b>Nickel</b>	<b>2.20</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>27</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS40-SS-30-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BJ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1110</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>8170</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>1570</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>6180</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>10200</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>32.8</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>2440</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>6.90</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>223</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Lead</b>	<b>0.482</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	<b>Nickel</b>	<b>2.09</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>27</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS41-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 11:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BM A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>270</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>38900</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>3480</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>3830</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>5130</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>466</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>3510</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>11.7</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>79.3</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Lead</b>	<b>6.10</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	<b>Nickel</b>	<b>2.45</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>111</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS42-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 11:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BP A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	16800		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	1020		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	121		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	3870		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	207		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	733		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	1.54		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	2.73		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	2.83		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	46		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS42-SS-90-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 12:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BS A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	< 1000	U	ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	< 10.0	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	< 2		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS43-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BV A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	56.7		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	157000		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	8130		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	2910		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	12200		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	3990		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	45.8		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	0.780	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	0.784	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	0.816	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	4.11		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	426		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS44-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 15:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BY A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>92.6</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>158000</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>7330</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>1250</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>21800</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>1840</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>580</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Arsenic</b>	<b>1.07</b>	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>0.296</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>1.09</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>425</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS45-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 15:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CB A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1170</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>37700</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>2590</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>83.4</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>21600</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>463</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>811</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>9.41</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>2.05</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	<b>Nickel</b>	<b>1.26</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>105</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS46-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/06/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CE A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>2100</b>		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Calcium</b>	<b>38900</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Iron</b>	<b>6340</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Magnesium</b>	<b>3160</b>		ug/L	100	1	12/12/2016	SV	1612061
200.7	<b>Manganese</b>	<b>1830</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Silica (SiO2)</b>	<b>30400</b>		ug/L	250	1	12/12/2016	SV	1612061
200.7	<b>Strontium</b>	<b>517</b>		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	<b>Zinc</b>	<b>2360</b>		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Cadmium</b>	<b>21.1</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	<b>Copper</b>	<b>15.2</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	<b>Lead</b>	<b>32.6</b>		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	<b>Nickel</b>	<b>3.87</b>		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	<b>Hardness</b>	<b>110</b>		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS82-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/20/16 12:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CH A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	2170		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	< 250	U	ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	470		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	2.21	J	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	27900		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	11.3		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	0.721	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	1.18	J	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	7		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS83-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/20/16 14:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CK A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	19000		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	2.91	J	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	69600		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	46800		ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	19800		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	7710		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	39000		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	733		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	6490		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	1.76	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	22.6		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	5.85		ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	1900		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	1.02		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	23.3		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	1.66	J	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	255		mg/L	2	1	12/12/2016	SV	1612061

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS84-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/20/16 14:30  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-CN A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	18400		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	2.84	J	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	69400		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	46700		ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	19300		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	7690		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	39100		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	718		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	6490		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	1.56	J	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	21.9		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	5.87		ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	1900		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	0.597		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	22.8		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	253		mg/L	2	1	12/12/2016	SV	1612061

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS85-SS-00-EPA  
EPA Tag No.: 8-CDate / Time Sampled: 10/20/16 15:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CQ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	521		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	341000		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	19100		ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	19700		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	14900		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	37100		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	4370		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	3440		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612062
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612062
200.8	Cadmium	13.6		ug/L	0.500	5	12/13/2016	SV	1612062
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612062
200.8	Copper	61.4		ug/L	2.50	5	12/13/2016	SV	1612062
200.8	Lead	4.02		ug/L	0.500	5	12/13/2016	SV	1612062
200.8	Nickel	16.2		ug/L	2.50	5	12/13/2016	SV	1612062
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612062
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612062
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612062
2340B	Hardness	933		mg/L	2	1	12/12/2016	SV	1612061

## Metals (Dissolved) by EPA 200/7000 Series Methods

Station ID: SS86-SS-00-EPA  
 EPA Tag No.: 8-C

Date / Time Sampled: 10/20/16 16:45  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-CT A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	7890		ug/L	20.0	1	12/12/2016	SV	1612061
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Calcium	162000		ug/L	100	1	12/12/2016	SV	1612061
200.7	Iron	25500		ug/L	100	1	12/12/2016	SV	1612061
200.7	Magnesium	14500		ug/L	100	1	12/12/2016	SV	1612061
200.7	Manganese	6930		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Silica (SiO2)	45400		ug/L	250	1	12/12/2016	SV	1612061
200.7	Strontium	1190		ug/L	2.00	1	12/12/2016	SV	1612061
200.7	Zinc	1670		ug/L	10.0	1	12/12/2016	SV	1612061
200.8	Antimony	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Arsenic	< 2.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Cadmium	5.05		ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Chromium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Copper	10.9		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Lead	< 0.200	U	ug/L	0.100	1	12/13/2016	SV	1612062
200.8	Nickel	8.61		ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Selenium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
200.8	Silver	< 1.00	U	ug/L	0.500	1	12/13/2016	SV	1612062
200.8	Thallium	< 2.00	U	ug/L	1.00	1	12/13/2016	SV	1612062
2340B	Hardness	465		mg/L	2	1	12/12/2016	SV	1612061

"J" Qualifier indicates an estimated value

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS01-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/22/16 13:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-02 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>295</b>		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>12900</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Iron</b>	<b>182</b>	J	ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>1560</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>43.9</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>6160</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>52.3</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>293</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Cadmium</b>	<b>0.709</b>	J	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	<b>Copper</b>	<b>7.05</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Lead</b>	<b>27.5</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	<b>Nickel</b>	<b>2.74</b>	J	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS02-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/22/16 13:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-05 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>21.4</b>	J	ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>57700</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>5670</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>7.48</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>3700</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>375</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>94.7</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Thallium</b>	<b>11.9</b>		ug/L	5.00	5	12/13/2016	SV	1612018

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS03-SS-00-EPA  
 EPA Tag No.: 8-B

Date / Time Sampled: 09/22/16 14:35  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-08 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>39.0</b>	J	ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>59400</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>5650</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>444</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>4430</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>384</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>1440</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Cadmium</b>	<b>3.55</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	<b>Copper</b>	<b>35.1</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Lead</b>	<b>7.38</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Thallium</b>	<b>12.8</b>		ug/L	5.00	5	12/13/2016	SV	1612018

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS04-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/22/16 15:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-11 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	109		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	36000		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	208	J	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	2460		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	30.0		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	5090		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	189		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	135		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	6.33		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	7.81		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS05-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/22/16 16:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-14 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>377</b>		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>48300</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>4810</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>12.2</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>14800</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>165</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>16000</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Cadmium</b>	<b>8.72</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	<b>Copper</b>	<b>10.7</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Lead</b>	<b>1.71</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	<b>Nickel</b>	<b>6.44</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS06-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/23/16 10:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-17 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	210		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	15200		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	1050		ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	946		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	26.2		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	2820		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	105		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	1.91		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS07-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/23/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-20 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	22400		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	1090		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	5820		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	197		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS08-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/26/16 14:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-23 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	137		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	33500		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	4110		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	131		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	1310		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	341		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	21.2		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	0.619	J	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS09-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/26/16 15:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-26 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	66.0		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	32700		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	3770		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	2.10	J	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	4270		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	256		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	39.9		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS10-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/26/16 16:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-29 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	79.9		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	27100		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	2670		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	6.73		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	6270		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	186		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	72.0		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	4.23	J	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	0.710	J	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS10-SS-30-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/26/16 16:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-32 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	72.5		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	27100		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	2680		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	5.60		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	6300		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	187		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	73.1		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS11-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/26/16 17:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-35 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>9820</b>		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>151000</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>21300</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>5330</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>10100</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>1390</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>747</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Cadmium</b>	<b>4.69</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	<b>Copper</b>	<b>41.7</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Lead</b>	<b>18.8</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	<b>Nickel</b>	<b>23.4</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS12-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 09/26/16 17:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-38 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1300</b>		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>105000</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Iron</b>	<b>4210</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>12600</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>1380</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>7880</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>603</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>889</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Cadmium</b>	<b>3.87</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	<b>Copper</b>	<b>24.2</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Lead</b>	<b>7.15</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	<b>Nickel</b>	<b>5.40</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS13-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-41 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	47.2	J	ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	37000		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	1880		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	13.2		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	3170		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	260		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	16.9	J	ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS14-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 12:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-44 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	20.0	J	ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	37100		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	1730		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	6550		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	305		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS15-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 13:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-47 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	131		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	33600		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	170	J	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	2740		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	15.0		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	7830		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	231		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	3.04	J	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS16-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 14:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-50 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	1320		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	37900		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	3940		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	750		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	33600		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	353		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	219		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	5.57		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS17-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 14:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-53 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1890</b>		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Calcium</b>	<b>42500</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Magnesium</b>	<b>5380</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	<b>Manganese</b>	<b>1190</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Silica (SiO2)</b>	<b>37500</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	<b>Strontium</b>	<b>410</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	<b>Zinc</b>	<b>398</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	<b>Cadmium</b>	<b>2.02</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	<b>Copper</b>	<b>10.1</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	<b>Nickel</b>	<b>3.77</b>	J	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS18-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 15:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-56 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	<b>5050</b>		ug/L	20.0	1	12/13/2016	SV	1612018
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Calcium	<b>52200</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Iron	<b>109</b>	J	ug/L	100	1	12/13/2016	SV	1612018
200.7	Magnesium	<b>8970</b>		ug/L	100	1	12/13/2016	SV	1612018
200.7	Manganese	<b>2660</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Silica (SiO2)	<b>35700</b>		ug/L	250	1	12/13/2016	SV	1612018
200.7	Strontium	<b>464</b>		ug/L	2.00	1	12/13/2016	SV	1612018
200.7	Zinc	<b>1620</b>		ug/L	10.0	1	12/13/2016	SV	1612018
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Cadmium	<b>9.52</b>		ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Copper	<b>41.9</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/13/2016	SV	1612018
200.8	Nickel	<b>11.3</b>		ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/13/2016	SV	1612018
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/13/2016	SV	1612018

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS19-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-59 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	23900		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	1770		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	6460		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	216		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	80.2		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS19-SS-30-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/03/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-62 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	23700		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	1770		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	6390		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	216		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	79.3		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	11.2		ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS20-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-65 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>636</b>		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Calcium</b>	<b>7730</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Magnesium</b>	<b>2320</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Manganese</b>	<b>195</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Silica (SiO2)</b>	<b>5260</b>		ug/L	250	1	12/13/2016	SV	1612019
200.7	<b>Strontium</b>	<b>38.7</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Zinc</b>	<b>65.5</b>		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Cadmium</b>	<b>0.503</b>	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Lead</b>	<b>0.745</b>	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	<b>Nickel</b>	<b>3.52</b>	J	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Thallium</b>	<b>11.8</b>		ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS21-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 12:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-68 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>180</b>		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Calcium</b>	<b>4220</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Magnesium</b>	<b>547</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Manganese</b>	<b>21.8</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Silica (SiO2)</b>	<b>5470</b>		ug/L	250	1	12/13/2016	SV	1612019
200.7	<b>Strontium</b>	<b>24.4</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Zinc</b>	<b>105</b>		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Cadmium</b>	<b>0.638</b>	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Lead</b>	<b>0.857</b>	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS22-SS-00-EPA  
 EPA Tag No.: 8-B

Date / Time Sampled: 10/04/16 12:50  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-71 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>107</b>		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Calcium</b>	<b>16900</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Magnesium</b>	<b>1770</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Manganese</b>	<b>2.47</b>	J	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Silica (SiO2)</b>	<b>7730</b>		ug/L	250	1	12/13/2016	SV	1612019
200.7	<b>Strontium</b>	<b>78.3</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Zinc</b>	<b>232</b>		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Cadmium</b>	<b>0.928</b>	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS23-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 13:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-74 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>399</b>		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Calcium</b>	<b>19500</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Magnesium</b>	<b>2580</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Manganese</b>	<b>10.1</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Silica (SiO2)</b>	<b>6960</b>		ug/L	250	1	12/13/2016	SV	1612019
200.7	<b>Strontium</b>	<b>94.0</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Zinc</b>	<b>209</b>		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Cadmium</b>	<b>0.569</b>	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS24-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 13:40  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-77 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	27.8	J	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	81300		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	5780		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	3040		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	828		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	11.4	J	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS25-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 14:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-80 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	290		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	50500		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	337		ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	3200		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	14.8		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	3290		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	402		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	17.8	J	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	3.96		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS26-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 15:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-83 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>324</b>		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Calcium</b>	<b>15000</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Magnesium</b>	<b>1600</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Manganese</b>	<b>234</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Silica (SiO2)</b>	<b>2930</b>		ug/L	250	1	12/13/2016	SV	1612019
200.7	<b>Strontium</b>	<b>52.8</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Zinc</b>	<b>303</b>		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Cadmium</b>	<b>1.13</b>		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	<b>Copper</b>	<b>29.0</b>		ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Lead</b>	<b>3.88</b>		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS27-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-86 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	6450		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	79000		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	14200		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	9870		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	10600		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	194		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	4770		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	34.0		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	477		ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	2.64		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	19.5		ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS27-SS-90-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-89 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	< 1000	U	ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	< 10.0	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS28-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 16:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-92 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	46.5	J	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	7670		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	580		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	10.6		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	5990		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	37.7		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	16.9	J	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	0.644	J	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS29-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/04/16 17:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-95 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>260</b>		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Calcium</b>	<b>41200</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Magnesium</b>	<b>4060</b>		ug/L	100	1	12/13/2016	SV	1612019
200.7	<b>Manganese</b>	<b>102</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Silica (SiO2)</b>	<b>6860</b>		ug/L	250	1	12/13/2016	SV	1612019
200.7	<b>Strontium</b>	<b>211</b>		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	<b>Zinc</b>	<b>988</b>		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	<b>Cadmium</b>	<b>2.91</b>		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	<b>Copper</b>	<b>3.77</b>	J	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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TDF #:

A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS30-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 10:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-98 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	34.8	J	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	17400		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	798		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	4970		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	217		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS31-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 11:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AB A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	25000		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	1120		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	3920		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	199		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS32-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AE A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	192		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	66500		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	106	J	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	4930		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	4.13	J	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	3130		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	658		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS33-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 12:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AH A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	26.8	J	ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	4200		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	< 250	U	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	354		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	12.1		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	649	J	ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	46.5		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	17.7	J	ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS34-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AK A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	347		ug/L	20.0	1	12/13/2016	SV	1612019
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Calcium	5930		ug/L	100	1	12/13/2016	SV	1612019
200.7	Iron	119	J	ug/L	100	1	12/13/2016	SV	1612019
200.7	Magnesium	689		ug/L	100	1	12/13/2016	SV	1612019
200.7	Manganese	344		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Silica (SiO2)	2200		ug/L	250	1	12/13/2016	SV	1612019
200.7	Strontium	47.2		ug/L	2.00	1	12/13/2016	SV	1612019
200.7	Zinc	830		ug/L	10.0	1	12/13/2016	SV	1612019
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Cadmium	2.72		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Copper	46.8		ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Lead	2.58		ug/L	0.500	5	12/14/2016	SV	1612019
200.8	Nickel	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612019
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612019

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS34-SS-30-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AN A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>352</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>5850</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Iron</b>	<b>147</b>	J	ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>702</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>346</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>2210</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>47.4</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Zinc</b>	<b>819</b>		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Cadmium</b>	<b>2.70</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	<b>Copper</b>	<b>46.8</b>		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Lead</b>	<b>2.52</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	<b>Nickel</b>	<b>12.9</b>		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS35-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 13:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AQ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1030</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>57000</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Iron</b>	<b>1090</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>5440</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>14.7</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>6550</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>530</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Zinc</b>	<b>24.2</b>		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	<b>Copper</b>	<b>3.19</b>	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Lead</b>	<b>1.33</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Thallium</b>	<b>12.5</b>		ug/L	5.00	5	12/14/2016	SV	1612040

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS36-SS-00-EPA  
 EPA Tag No.: 8-B

Date / Time Sampled: 10/05/16 15:50  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-AT A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>80.9</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>17800</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>1160</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>13.4</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>4180</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>91.3</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Zinc</b>	<b>898</b>		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Cadmium</b>	<b>2.94</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	<b>Copper</b>	<b>37.7</b>		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Lead</b>	<b>57.0</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Thallium</b>	<b>12.9</b>		ug/L	5.00	5	12/14/2016	SV	1612040

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS37-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/05/16 16:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AW A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	5990		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	102000		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	23600		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	3190		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	11700		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	618		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	743		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	4.33		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	184		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	4.75		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	23.8		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS38-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 09:40  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AZ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	42.3	J	ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	41500		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	2810		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	3510		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	821		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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A-128

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS39-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 10:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BC A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	973		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	18600		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	1940		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	460		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	7130		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	81.2		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	1440		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	4.94		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	124		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	3.28		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	3.94	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS40-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BF A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	1120		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	8550		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	1590		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	6210		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	10100		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	33.1		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	2350		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	6.20		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	213		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	0.581	J	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	3.63	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS40-SS-30-EPA  
 EPA Tag No.: 8-B

Date / Time Sampled: 10/06/16 11:00  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-BI A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1130</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>8350</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>1580</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>6220</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>10200</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>32.9</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Zinc</b>	<b>2340</b>		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Cadmium</b>	<b>6.36</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	<b>Copper</b>	<b>210</b>		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	<b>Nickel</b>	<b>3.59</b>	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS41-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 11:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BL A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	384		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	37700		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	242	J	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	3460		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	3860		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	5080		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	464		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	3400		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	11.4		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	78.1		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	10.7		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	3.51	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS42-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 11:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BO A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>954</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>18400</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Iron</b>	<b>3230</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>1250</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>740</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>6100</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>215</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Zinc</b>	<b>1150</b>		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Cadmium</b>	<b>4.54</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	<b>Copper</b>	<b>70.0</b>		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Lead</b>	<b>810</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Selenium</b>	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS42-SS-90-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 12:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BR A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	< 50.0	U	ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	< 1000	U	ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	< 10.0	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS43-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BU A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	70.3		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	160000		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	213	J	ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	8410		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	3590		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	12300		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	4040		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	52.2		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	10.0		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS44-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 15:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BX A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	170		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	161000		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	2080		ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	7480		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	1270		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	22000		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	1840		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	600		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	0.812	J	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS45-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 15:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CA A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>1170</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>38600</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	< 250	U	ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>2610</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>84.2</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>21100</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>464</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Zinc</b>	<b>765</b>		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Cadmium</b>	<b>8.67</b>		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	<b>Copper</b>	<b>2.56</b>	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	<b>Nickel</b>	<b>2.85</b>	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS46-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/06/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CD A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	2130		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	39900		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	6530		ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	3230		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	1870		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	30900		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	527		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	2320		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	20.4		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	16.3		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	31.1		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	4.73	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS82-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/20/16 12:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CG A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	<b>Aluminum</b>	<b>157</b>		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Calcium</b>	<b>2120</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Iron</b>	<b>154</b>	J	ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Magnesium</b>	<b>488</b>		ug/L	100	1	12/14/2016	SV	1612040
200.7	<b>Manganese</b>	<b>4.18</b>	J	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	<b>Silica (SiO2)</b>	<b>28200</b>		ug/L	250	1	12/14/2016	SV	1612040
200.7	<b>Strontium</b>	<b>11.7</b>		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	< 20.0	U	ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	<b>Lead</b>	<b>0.707</b>	J	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS83-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/20/16 14:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CJ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	18400		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	2.86	J	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	68900		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	47800		ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	19400		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	7750		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	38900		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	718		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	6340		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	4.98	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	26.1		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	6.70	J	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	2080		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	9.87		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	26.1		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS84-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/20/16 14:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CM A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	18200		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	2.82	J	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	68600		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	47000		ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	19200		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	7740		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	38900		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	714		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	6250		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	25.2		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	6.78	J	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	2100		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	0.641	J	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	26.3		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

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## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS85-SS-00-EPA  
EPA Tag No.: 8-BDate / Time Sampled: 10/20/16 15:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CP A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	589		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	343000		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	24800		ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	19700		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	14800		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	37700		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	4350		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	3240		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	13.7		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	69.0		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	51.4		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	16.7		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

## Metals (Total Recov) by EPA 200/7000 Series Methods

Station ID: SS86-SS-00-EPA  
 EPA Tag No.: 8-B

Date / Time Sampled: 10/20/16 16:45  
 Matrix: Water

Workorder: C161102  
 Lab Number: C161102-CS A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
200.7	Aluminum	7800		ug/L	20.0	1	12/14/2016	SV	1612040
200.7	Beryllium	< 5.00	U	ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Calcium	163000		ug/L	100	1	12/14/2016	SV	1612040
200.7	Iron	28800		ug/L	100	1	12/14/2016	SV	1612040
200.7	Magnesium	14400		ug/L	100	1	12/14/2016	SV	1612040
200.7	Manganese	6950		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Silica (SiO2)	45500		ug/L	250	1	12/14/2016	SV	1612040
200.7	Strontium	1190		ug/L	2.00	1	12/14/2016	SV	1612040
200.7	Zinc	1640		ug/L	10.0	1	12/14/2016	SV	1612040
200.8	Antimony	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Arsenic	< 10.0	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Cadmium	3.33		ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Chromium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Copper	12.9		ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Lead	< 1.00	U	ug/L	0.500	5	12/14/2016	SV	1612040
200.8	Nickel	9.60	J	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Selenium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040
200.8	Silver	< 5.00	U	ug/L	2.50	5	12/14/2016	SV	1612040
200.8	Thallium	< 10.0	U	ug/L	5.00	5	12/14/2016	SV	1612040

"J" Qualifier indicates an estimated value

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS01-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/22/16 13:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-01 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	37.3	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS02-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/22/16 13:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-04 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	141	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS03-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/22/16 14:35  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-07 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	159	J	mg/L	1.0	1	11/04/2016	NP	1611029

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS04-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/22/16 15:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-10 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	78.1	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS05-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/22/16 16:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-13 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	1.0	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.3	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	166	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS06-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/23/16 10:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-16 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	25.7	J	mg/L	1.0	1	11/04/2016	NP	1611029

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS07-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/23/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-19 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	41.6	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS08-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/26/16 14:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-22 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	0.4	J	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	96.7	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS09-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/26/16 15:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-25 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	88.1	J	mg/L	1.0	1	11/04/2016	NP	1611029

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS10-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/26/16 16:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-28 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	72.4	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS10-SS-30-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/26/16 16:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-31 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	72.4	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS11-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/26/16 17:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-34 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 3.2	J,	mg/L	1.6	4	11/09/2016	NP	1611029
EPA 300.0	Fluoride	1.2	J	mg/L	0.4	4	11/09/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.8	J,	mg/L	0.4	4	11/09/2016	NP	1611029
EPA 300.0	Sulfate as SO4	515	J	mg/L	4.0	4	11/09/2016	NP	1611029

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS12-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 09/26/16 17:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-37 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 1.6	J,	mg/L	0.8	2	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.3	J	mg/L	0.2	2	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.7	J	mg/L	0.2	2	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO <sub>4</sub>	333	J	mg/L	2.0	2	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS13-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/03/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-40 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO <sub>4</sub>	88.6	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS14-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/03/16 12:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-43 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.4	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO <sub>4</sub>	73.3	J	mg/L	1.0	1	11/04/2016	NP	1611029

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS15-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/03/16 13:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-46 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	85.6	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS16-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/03/16 14:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-49 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	0.5	J	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	0.8	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	126	J	mg/L	1.0	1	11/04/2016	NP	1611029

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS17-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/03/16 14:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-52 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	1.1	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO4	146	J	mg/L	1.0	1	11/04/2016	NP	1611029

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**Classical Chemistry by EPA/ASTM/APHA Methods**

**Station ID:** SS18-SS-00-EPA  
**EPA Tag No.:** 8-A

**Date / Time Sampled:** 10/03/16 15:15  
**Matrix:** Water

**Workorder:** C161102  
**Lab Number:** C161102-55 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	<b>2.4</b>	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO <sub>4</sub>	<b>216</b>	J	mg/L	1.0	1	11/04/2016	NP	1611029

**Classical Chemistry by EPA/ASTM/APHA Methods**

**Station ID:** SS19-SS-00-EPA  
**EPA Tag No.:** 8-A

**Date / Time Sampled:** 10/03/16 16:00  
**Matrix:** Water

**Workorder:** C161102  
**Lab Number:** C161102-58 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611029
EPA 300.0	Fluoride	<b>0.2</b>	J	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611029
EPA 300.0	Sulfate as SO <sub>4</sub>	<b>50.5</b>	J	mg/L	1.0	1	11/04/2016	NP	1611029

**Classical Chemistry by EPA/ASTM/APHA Methods**

**Station ID:** SS19-SS-30-EPA  
**EPA Tag No.:** 8-A

**Date / Time Sampled:** 10/03/16 16:00  
**Matrix:** Water

**Workorder:** C161102  
**Lab Number:** C161102-61 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	<b>0.2</b>	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO <sub>4</sub>	<b>50.3</b>	J	mg/L	1.0	1	11/04/2016	NP	1611030

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS20-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-64 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	50.5	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS21-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 12:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-67 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	12.5	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS22-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 12:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-70 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	40.7	J	mg/L	1.0	1	11/04/2016	NP	1611030

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**Classical Chemistry by EPA/ASTM/APHA Methods**Station ID: SS23-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 13:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-73 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.4	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	58.0	J	mg/L	1.0	1	11/04/2016	NP	1611030

**Classical Chemistry by EPA/ASTM/APHA Methods**Station ID: SS24-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 13:40  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-76 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.4	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	193	J	mg/L	1.0	1	11/04/2016	NP	1611030

**Classical Chemistry by EPA/ASTM/APHA Methods**Station ID: SS25-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 14:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-79 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.5	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	114	J	mg/L	1.0	1	11/04/2016	NP	1611030

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS26-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 15:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-82 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.6	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.3	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	99.6	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS27-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-85 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 1.6	J,	mg/L	0.8	2	11/07/2016	NP	1611030
EPA 300.0	Fluoride	3.1	J	mg/L	0.2	2	11/07/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.4	J	mg/L	0.2	2	11/07/2016	NP	1611030
EPA 300.0	Sulfate as SO4	317	J	mg/L	2.0	2	11/07/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS27-SS-90-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-88 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	< 2.0	J,	mg/L	1.0	1	11/04/2016	NP	1611030

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS28-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 16:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-91 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	0.4	J	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO <sub>4</sub>	17.1	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS29-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/04/16 17:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-94 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.3	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO <sub>4</sub>	122	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS30-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 10:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-97 A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO <sub>4</sub>	29.0	J	mg/L	1.0	1	11/04/2016	NP	1611030

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS31-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 11:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AA A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.3	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	36.7	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS32-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 11:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AD A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	75.9	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS33-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 12:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AG A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	11.1	J	mg/L	1.0	1	11/04/2016	NP	1611030

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS34-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AJ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	19.9	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS34-SS-30-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AM A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	20.0	J	mg/L	1.0	1	11/04/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS35-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 13:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AP A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	0.8	J	mg/L	0.4	1	11/04/2016	NP	1611030
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/04/2016	NP	1611030
EPA 300.0	Sulfate as SO4	146	J	mg/L	1.0	1	11/04/2016	NP	1611030

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS36-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 15:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AS A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	0.4	J	mg/L	0.4	1	11/05/2016	NP	1611030
EPA 300.0	Fluoride	< 0.2	J	mg/L	0.1	1	11/05/2016	NP	1611030
EPA 300.0	Nitrate/Nitrite as N	0.1	J	mg/L	0.1	1	11/05/2016	NP	1611030
EPA 300.0	Sulfate as SO <sub>4</sub>	45.1	J	mg/L	1.0	1	11/05/2016	NP	1611030

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS37-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/05/16 16:20  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AV A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 1.6	J	mg/L	0.8	2	11/07/2016	NP	1611031
EPA 300.0	Fluoride	0.7	J	mg/L	0.2	2	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.2	2	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	386	J	mg/L	2.0	2	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS38-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 09:40  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-AY A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	< 0.2	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.4	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	46.7	J	mg/L	1.0	1	11/07/2016	NP	1611031

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS39-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 10:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BB A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	0.1	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	58.4	J	mg/L	1.0	1	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS40-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BE A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	0.4	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	44.8	J	mg/L	1.0	1	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS40-SS-30-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 11:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BH A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	0.5	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	44.9	J	mg/L	1.0	1	11/07/2016	NP	1611031

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS41-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 11:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BK A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	0.4	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.2	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	109	J	mg/L	1.0	1	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS42-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 11:50  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BN A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.1	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	20.7	J	mg/L	1.0	1	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS42-SS-90-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 12:15  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BQ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	< 0.2	J,	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	< 2.0	J,	mg/L	1.0	1	11/07/2016	NP	1611031

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS43-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 12:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BT A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 1.6	J,	mg/L	0.8	2	11/07/2016	NP	1611031
EPA 300.0	Fluoride	0.8	J	mg/L	0.2	2	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 0.4	J,	mg/L	0.2	2	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	340	J	mg/L	2.0	2	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS44-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 15:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BW A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 1.6	J,	mg/L	0.8	2	11/07/2016	NP	1611031
EPA 300.0	Fluoride	3.7	J	mg/L	0.2	2	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 0.4	J,	mg/L	0.2	2	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	421	J	mg/L	2.0	2	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS45-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 15:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-BZ A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	1.5	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	113	J	mg/L	1.0	1	11/07/2016	NP	1611031

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS46-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/06/16 16:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CC A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	J,	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	3.2	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 0.2	J,	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	142	J	mg/L	1.0	1	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS82-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/20/16 12:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CF A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 0.8	U	mg/L	0.4	1	11/07/2016	NP	1611031
EPA 300.0	Fluoride	< 0.2	U	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	0.1	J	mg/L	0.1	1	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	7.2		mg/L	1.0	1	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS83-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/20/16 14:00  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CI A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 4.0	U	mg/L	2.0	5	11/07/2016	NP	1611031
EPA 300.0	Fluoride	3.0		mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 1.0	U	mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO4	623		mg/L	5.0	5	11/07/2016	NP	1611031

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## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS84-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/20/16 14:30  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CL A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 4.0	U	mg/L	2.0	5	11/07/2016	NP	1611031
EPA 300.0	Fluoride	<b>3.0</b>		mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 1.0	U	mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	<b>629</b>		mg/L	5.0	5	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS85-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/20/16 15:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CO A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 4.0	U	mg/L	2.0	5	11/07/2016	NP	1611031
EPA 300.0	Fluoride	<b>0.8</b>	J	mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 1.0	U	mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	<b>1010</b>		mg/L	5.0	5	11/07/2016	NP	1611031

## Classical Chemistry by EPA/ASTM/APHA Methods

Station ID: SS86-SS-00-EPA  
EPA Tag No.: 8-ADate / Time Sampled: 10/20/16 16:45  
Matrix: WaterWorkorder: C161102  
Lab Number: C161102-CR A

Method	Parameter	Results	Qualifier	Units	MDL	Dilution Factor	Analyzed	By	Batch
EPA 300.0	Chloride	< 4.0	U	mg/L	2.0	5	11/07/2016	NP	1611031
EPA 300.0	Fluoride	<b>1.6</b>		mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Nitrate/Nitrite as N	< 1.0	U	mg/L	0.5	5	11/07/2016	NP	1611031
EPA 300.0	Sulfate as SO <sub>4</sub>	<b>583</b>		mg/L	5.0	5	11/07/2016	NP	1611031

"J" Qualifier indicates an estimated value

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## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
<b>ICPMS-PE DRC-II</b>									
Batch 1612056 - No Lab Prep Reqd		<i>Water</i>							<b>ICPMS-PE DRC-II</b>
<b>Method Blank (1612056-BLK1)</b>		Dilution Factor: 1							Prepared: 12/09/16 Analyzed: 12/12/16
Chromium	< 1.00	2.00	ug/L						
Nickel	< 0.500	1.00	"						
Copper	< 0.500	1.00	"						
Arsenic	< 0.500	2.00	"						
Selenium	< 1.00	2.00	"						
Silver	< 0.500	1.00	"						
Cadmium	< 0.100	0.200	"						
Antimony	< 0.500	1.00	"						
Thallium	< 1.00	2.00	"						
Lead	< 0.100	0.200	"						
<b>Method Blank Spike (1612056-BS1)</b>		Dilution Factor: 1							Prepared: 12/09/16 Analyzed: 12/12/16
Chromium	95.0	2.00	ug/L	100	95	85-115			
Nickel	95.0	1.00	"	100	95	85-115			
Copper	97.7	1.00	"	100	98	85-115			
Arsenic	91.3	2.00	"	100	91	85-115			
Selenium	521	2.00	"	500	104	85-115			
Silver	96.8	1.00	"	100	97	85-115			
Cadmium	97.9	0.200	"	100	98	85-115			
Antimony	103	1.00	"	100	103	85-115			
Thallium	95.5	2.00	"	100	95	85-115			
Lead	96.2	0.200	"	100	96	85-115			
<b>Duplicate (1612056-DUP1)</b>		Dilution Factor: 1	<b>Source: C161102-03</b>			Prepared: 12/09/16 Analyzed: 12/12/16			
Chromium	< 1.00	2.00	ug/L	< 1.00					20
Nickel	2.68	1.00	"	2.68				0.2	20
Copper	4.87	1.00	"	4.84				0.5	20
Arsenic	< 0.500	2.00	"	< 0.500					20
Selenium	< 1.00	2.00	"	< 1.00					20
Silver	< 0.500	1.00	"	< 0.500					20
Cadmium	0.737	0.200	"	0.741				0.5	20
Antimony	< 0.500	1.00	"	< 0.500					20
Thallium	< 1.00	2.00	"	< 1.00					20
Lead	18.6	0.200	"	18.3				1	20

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612056 - No Lab Prep Reqd		<i>Water</i>						ICPMS-PE DRC-II	
<b>Matrix Spike (1612056-MS1)</b>		Dilution Factor: 1		<b>Source: C161102-03</b>			Prepared: 12/09/16 Analyzed: 12/12/16		
Chromium	93.5	2.00	ug/L	100	< 1.00	94	70-130		
Nickel	94.7	1.00	"	100	2.68	92	70-130		
Copper	99.1	1.00	"	100	4.84	94	70-130		
Arsenic	94.7	2.00	"	100	< 0.500	95	70-130		
Selenium	552	2.00	"	500	< 1.00	110	70-130		
Silver	91.2	1.00	"	100	< 0.500	91	70-130		
Cadmium	98.0	0.200	"	100	0.741	97	70-130		
Antimony	101	1.00	"	100	< 0.500	101	70-130		
Thallium	91.6	2.00	"	100	< 1.00	92	70-130		
Lead	110	0.200	"	100	18.3	91	70-130		
<b>Matrix Spike (1612056-MS2)</b>		Dilution Factor: 1		<b>Source: C161102-06</b>			Prepared: 12/09/16 Analyzed: 12/12/16		
Chromium	93.8	2.00	ug/L	100	1.20	93	70-130		
Nickel	88.4	1.00	"	100	< 0.500	88	70-130		
Copper	92.7	1.00	"	100	1.10	92	70-130		
Arsenic	94.4	2.00	"	100	< 0.500	94	70-130		
Selenium	556	2.00	"	500	< 1.00	111	70-130		
Silver	90.4	1.00	"	100	< 0.500	90	70-130		
Cadmium	98.2	0.200	"	100	0.258	98	70-130		
Antimony	102	1.00	"	100	0.598	101	70-130		
Thallium	90.5	2.00	"	100	< 1.00	90	70-130		
Lead	90.4	0.200	"	100	< 0.100	90	70-130		
Batch 1612059 - No Lab Prep Reqd		<i>Water</i>						ICPMS-PE DRC-II	
<b>Method Blank (1612059-BLK1)</b>		Dilution Factor: 1		Prepared & Analyzed: 12/12/16					
Chromium	< 1.00	2.00	ug/L						
Nickel	< 0.500	1.00	"						
Copper	< 0.500	1.00	"						
Arsenic	< 0.500	2.00	"						
Selenium	< 1.00	2.00	"						
Silver	< 0.500	1.00	"						
Cadmium	< 0.100	0.200	"						
Antimony	< 0.500	1.00	"						
Thallium	< 1.00	2.00	"						
Lead	< 0.100	0.200	"						

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit								
Batch 1612059 - No Lab Prep Reqd		<i>Water</i>						ICPMS-PE DRC-II									
<b>Method Blank Spike (1612059-BS1)</b>																	
Dilution Factor: 1      Prepared & Analyzed: 12/12/16																	
Chromium	99.7	2.00	ug/L	100	100	85-115											
Nickel	96.2	1.00	"	100	96	85-115											
Copper	96.6	1.00	"	100	97	85-115											
Arsenic	96.2	2.00	"	100	96	85-115											
Selenium	543	2.00	"	500	109	85-115											
Silver	102	1.00	"	100	102	85-115											
Cadmium	103	0.200	"	100	103	85-115											
Antimony	107	1.00	"	100	107	85-115											
Thallium	101	2.00	"	100	101	85-115											
Lead	102	0.200	"	100	102	85-115											
<b>Duplicate (1612059-DUP1)</b>		Dilution Factor: 1		<b>Source: C161102-63</b>		Prepared & Analyzed: 12/12/16											
Chromium	< 1.00	2.00	ug/L	< 1.00					20								
Nickel	< 0.500	1.00	"	< 0.500					20								
Copper	0.949	1.00	"	0.949				0.01	20								
Arsenic	< 0.500	2.00	"	< 0.500					20								
Selenium	< 1.00	2.00	"	< 1.00					20								
Silver	< 0.500	1.00	"	< 0.500					20								
Cadmium	0.160	0.200	"	0.185				15	20								
Antimony	< 0.500	1.00	"	< 0.500					20								
Thallium	< 1.00	2.00	"	< 1.00					20								
Lead	< 0.100	0.200	"	< 0.100					20								
<b>Matrix Spike (1612059-MS1)</b>		Dilution Factor: 1		<b>Source: C161102-63</b>		Prepared & Analyzed: 12/12/16											
Chromium	97.3	2.00	ug/L	100	< 1.00	97	70-130										
Nickel	91.5	1.00	"	100	< 0.500	92	70-130										
Copper	95.3	1.00	"	100	0.949	94	70-130										
Arsenic	96.8	2.00	"	100	< 0.500	97	70-130										
Selenium	567	2.00	"	500	< 1.00	113	70-130										
Silver	97.3	1.00	"	100	< 0.500	97	70-130										
Cadmium	103	0.200	"	100	0.185	103	70-130										
Antimony	108	1.00	"	100	< 0.500	108	70-130										
Thallium	98.3	2.00	"	100	< 1.00	98	70-130										
Lead	100	0.200	"	100	< 0.100	100	70-130										

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612059 - No Lab Prep Reqd		<i>Water</i>							ICPMS-PE DRC-II
<b>Matrix Spike (1612059-MS2)</b>		Dilution Factor: 1		<b>Source: C161102-66</b>			Prepared & Analyzed: 12/12/16		
Chromium	95.9	2.00	ug/L	100	< 1.00	96	70-130		
Nickel	95.4	1.00	"	100	3.53	92	70-130		
Copper	95.4	1.00	"	100	0.992	94	70-130		
Arsenic	98.3	2.00	"	100	< 0.500	98	70-130		
Selenium	570	2.00	"	500	< 1.00	114	70-130		
Silver	97.2	1.00	"	100	< 0.500	97	70-130		
Cadmium	102	0.200	"	100	0.439	102	70-130		
Antimony	107	1.00	"	100	< 0.500	107	70-130		
Thallium	97.2	2.00	"	100	< 1.00	97	70-130		
Lead	99.0	0.200	"	100	0.739	98	70-130		
Batch 1612062 - No Lab Prep Reqd		<i>Water</i>							ICPMS-PE DRC-II
<b>Method Blank (1612062-BLK1)</b>		Dilution Factor: 1		Prepared: 12/12/16 Analyzed: 12/13/16					
Chromium	< 1.00	2.00	ug/L						
Nickel	< 0.500	1.00	"						
Copper	< 0.500	1.00	"						
Arsenic	< 0.500	2.00	"						
Selenium	< 1.00	2.00	"						
Silver	< 0.500	1.00	"						
Cadmium	< 0.100	0.200	"						
Antimony	< 0.500	1.00	"						
Thallium	< 1.00	2.00	"						
Lead	< 0.100	0.200	"						
<b>Method Blank Spike (1612062-BS1)</b>		Dilution Factor: 1		Prepared: 12/12/16 Analyzed: 12/13/16					
Chromium	97.6	2.00	ug/L	100		98	85-115		
Nickel	94.0	1.00	"	100		94	85-115		
Copper	97.0	1.00	"	100		97	85-115		
Arsenic	92.2	2.00	"	100		92	85-115		
Selenium	518	2.00	"	500		104	85-115		
Silver	96.7	1.00	"	100		97	85-115		
Cadmium	98.9	0.200	"	100		99	85-115		
Antimony	99.4	1.00	"	100		99	85-115		
Thallium	97.1	2.00	"	100		97	85-115		
Lead	97.7	0.200	"	100		98	85-115		

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612062 - No Lab Prep Reqd		<i>Water</i>						ICPMS-PE DRC-II	
<b>Duplicate (1612062-DUP1)</b>		Dilution Factor: 1		Source: C161102-AX		Prepared: 12/12/16 Analyzed: 12/13/16			
Chromium	< 1.00	2.00	ug/L		< 1.00				20
Nickel	21.7	1.00	"		21.9		0.9		20
Copper	181	1.00	"		186		3		20
Arsenic	< 0.500	2.00	"		< 0.500				20
Selenium	< 1.00	2.00	"		< 1.00				20
Silver	< 0.500	1.00	"		< 0.500				20
Cadmium	4.36	0.200	"		4.57		5		20
Antimony	< 0.500	1.00	"		< 0.500				20
Thallium	< 1.00	2.00	"		< 1.00				20
Lead	4.64	0.200	"		4.62		0.4		20
<b>Matrix Spike (1612062-MS1)</b>		Dilution Factor: 1		Source: C161102-AX		Prepared: 12/12/16 Analyzed: 12/13/16			
Chromium	89.2	2.00	ug/L	100	< 1.00	89	70-130		
Nickel	105	1.00	"	100	21.9	83	70-130		
Copper	257	1.00	"	100	186	71	70-130		
Arsenic	97.7	2.00	"	100	< 0.500	98	70-130		
Selenium	577	2.00	"	500	< 1.00	115	70-130		
Silver	93.1	1.00	"	100	< 0.500	93	70-130		
Cadmium	104	0.200	"	100	4.57	99	70-130		
Antimony	101	1.00	"	100	< 0.500	101	70-130		
Thallium	90.5	2.00	"	100	< 1.00	91	70-130		
Lead	95.3	0.200	"	100	4.62	91	70-130		
<b>Matrix Spike (1612062-MS2)</b>		Dilution Factor: 1		Source: C161102-BA		Prepared: 12/12/16 Analyzed: 12/13/16			
Chromium	93.5	2.00	ug/L	100	< 1.00	93	70-130		
Nickel	90.5	1.00	"	100	< 0.500	90	70-130		
Copper	94.4	1.00	"	100	< 0.500	94	70-130		
Arsenic	96.2	2.00	"	100	< 0.500	96	70-130		
Selenium	568	2.00	"	500	< 1.00	114	70-130		
Silver	95.8	1.00	"	100	< 0.500	96	70-130		
Cadmium	102	0.200	"	100	< 0.100	102	70-130		
Antimony	101	1.00	"	100	< 0.500	101	70-130		
Thallium	96.6	2.00	"	100	< 1.00	97	70-130		
Lead	96.8	0.200	"	100	< 0.100	97	70-130		

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

**Certificate of Analysis**

TDF #: A-128

**Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control****TechLaw, Inc. - ESAT Region 8**

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612065 - 1612059		<b>Water</b>						<b>ICPMS-PE DRC-II</b>	
<b>Serial Dilution (1612065-SRD1)</b>		Dilution Factor: 5	<b>Source: C161102-03</b>		Prepared: 12/09/16 Analyzed: 12/12/16				
Chromium	< 5.00	10.0	ug/L		< 1.00				10
Nickel	< 2.50	5.00	"		2.68				10
Copper	4.75	5.00	"		4.84		2		10
Arsenic	< 2.50	10.0	"		< 0.50				10
Selenium	< 5.00	10.0	"		< 1.00				10
Silver	< 2.50	5.00	"		< 0.50				10
Cadmium	0.653	1.00	"		0.741		13		10
Antimony	< 2.50	5.00	"		< 0.50				10
Thallium	< 5.00	10.0	"		< 1.00				10
Lead	18.4	1.00	"		18.3		0.8		10
<b>Serial Dilution (1612065-SRD2)</b>		Dilution Factor: 5	<b>Source: C161102-63</b>		Prepared & Analyzed: 12/12/16				
Chromium	< 5.00	10.0	ug/L		< 1.00				10
Nickel	< 2.50	5.00	"		< 0.50				10
Copper	< 2.50	5.00	"		0.949				10
Arsenic	< 2.50	10.0	"		< 0.50				10
Selenium	< 5.00	10.0	"		< 1.00				10
Silver	< 2.50	5.00	"		< 0.50				10
Cadmium	< 0.500	1.00	"		0.185				10
Antimony	< 2.50	5.00	"		< 0.50				10
Thallium	< 5.00	10.0	"		< 1.00				10
Lead	< 0.500	1.00	"		< 0.10				10
Batch 1612075 - 1612062		<b>Water</b>						<b>ICPMS-PE DRC-II</b>	
<b>Serial Dilution (1612075-SRD1)</b>		Dilution Factor: 5	<b>Source: C161102-AX</b>		Prepared: 12/12/16 Analyzed: 12/13/16				
Chromium	< 5.00	10.0	ug/L		< 1.00				10
Nickel	22.3	5.00	"		21.9		2		10
Copper	190	5.00	"		186		2		10
Arsenic	< 2.50	10.0	"		< 0.50				10
Selenium	< 5.00	10.0	"		< 1.00				10
Silver	< 2.50	5.00	"		< 0.50				10
Cadmium	4.30	1.00	"		4.57		6		10
Antimony	< 2.50	5.00	"		< 0.50				10
Thallium	< 5.00	10.0	"		< 1.00				10
Lead	5.17	1.00	"		4.62		11		10

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
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**ICPOE - PE Optima**

Batch 1612055 - No Lab Prep Reqd

**Water****ICPOE - PE Optima**

<b>Method Blank (1612055-BLK1)</b>		Dilution Factor: 1		Prepared: 12/09/16 Analyzed: 12/12/16					
Aluminum	< 20.0	50.0	ug/L						
Beryllium	< 2.00	5.00	"						
Calcium	< 100	250	"						
Iron	< 100	250	"						
Magnesium	< 100	250	"						
Manganese	< 2.00	5.00	"						
Strontium	< 2.00	10.0	"						
Zinc	< 10.0	20.0	"						
Silica (SiO2)	< 250	1000	"						

<b>Method Blank Spike (1612055-BS1)</b>		Dilution Factor: 1		Prepared: 12/09/16 Analyzed: 12/12/16					
Aluminum	10350	50.0	ug/L	10100	102	85-115			
Beryllium	102.4	5.00	"	100	102	85-115			
Calcium	10280	250	"	10100	102	85-115			
Iron	10470	250	"	10100	104	85-115			
Magnesium	10310	250	"	10100	102	85-115			
Manganese	101.2	5.00	"	100	101	85-115			
Strontium	536.4	10.0	"	500	107	85-115			
Zinc	102.2	20.0	"	100	102	85-115			
Silica (SiO2)	< 250	1000	"			85-115			

<b>Duplicate (1612055-DUP1)</b>		Dilution Factor: 1		<b>Source: C161102-03</b>		Prepared: 12/09/16 Analyzed: 12/12/16		
Aluminum	194.7	50.0	ug/L	203.6		4	20	
Beryllium	< 2.00	5.00	"	< 2.00			20	
Calcium	12880	250	"	12750		1	20	
Iron	< 100	250	"	< 100			20	
Magnesium	1577	250	"	1575		0.1	20	
Manganese	36.83	5.00	"	36.41		1	20	
Strontium	52.14	10.0	"	52.10		0.09	20	
Zinc	296.9	20.0	"	296.9		0.005	20	
Silica (SiO2)	5914	1000	"	5916		0.04	20	

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612055 - No Lab Prep Reqd		<i>Water</i>						<b>ICPOE - PE Optima</b>	
<b>Matrix Spike (1612055-MS1)</b>		Dilution Factor: 1		<b>Source: C161102-03</b>			Prepared: 12/09/16 Analyzed: 12/12/16		
Aluminum	10420	50.0	ug/L	10100	203.6	101	70-130		
Beryllium	103.3	5.00	"	100	< 2.00	103	70-130		
Calcium	22900	250	"	10100	12750	100	70-130		
Iron	10420	250	"	10100	< 100	103	70-130		
Magnesium	11750	250	"	10100	1575	101	70-130		
Manganese	136.9	5.00	"	100	36.41	101	70-130		
Strontium	583.1	10.0	"	500	52.10	106	70-130		
Zinc	392.3	20.0	"	100	296.9	95	70-130		
Silica (SiO2)	5932	1000	"		5916		70-130		
<b>Matrix Spike (1612055-MS2)</b>		Dilution Factor: 1		<b>Source: C161102-06</b>			Prepared: 12/09/16 Analyzed: 12/12/16		
Aluminum	10320	50.0	ug/L	10100	< 20.0	102	70-130		
Beryllium	101.5	5.00	"	100	< 2.00	102	70-130		
Calcium	65300	250	"	10100	55790	94	70-130		
Iron	10240	250	"	10100	< 100	101	70-130		
Magnesium	15680	250	"	10100	5548	100	70-130		
Manganese	106.6	5.00	"	100	5.772	101	70-130		
Strontium	891.6	10.0	"	500	362.7	106	70-130		
Zinc	192.9	20.0	"	100	94.95	98	70-130		
Silica (SiO2)	3714	1000	"		3690		70-130		
Batch 1612058 - No Lab Prep Reqd		<i>Water</i>						<b>ICPOE - PE Optima</b>	
<b>Method Blank (1612058-BLK1)</b>		Dilution Factor: 1		Prepared & Analyzed: 12/12/16					
Aluminum	< 20.0	50.0	ug/L						
Beryllium	< 2.00	5.00	"						
Calcium	< 100	250	"						
Iron	< 100	250	"						
Magnesium	< 100	250	"						
Manganese	< 2.00	5.00	"						
Strontium	< 2.00	10.0	"						
Zinc	< 10.0	20.0	"						
Silica (SiO2)	< 250	1000	"						

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit								
Batch 1612058 - No Lab Prep Reqd		<i>Water</i>						ICPOE - PE Optima									
<b>Method Blank Spike (1612058-BS1)</b>																	
Dilution Factor: 1      Prepared & Analyzed: 12/12/16																	
Aluminum	10360	50.0	ug/L	10100	103	85-115											
Beryllium	102.1	5.00	"	100	102	85-115											
Calcium	10290	250	"	10100	102	85-115											
Iron	10360	250	"	10100	103	85-115											
Magnesium	10260	250	"	10100	102	85-115											
Manganese	101.1	5.00	"	100	101	85-115											
Strontium	551.7	10.0	"	500	110	85-115											
Zinc	104.7	20.0	"	100	105	85-115											
Silica (SiO2)	< 250	1000	"			85-115											
<b>Duplicate (1612058-DUP1)</b>		Dilution Factor: 1		<b>Source: C161102-63</b>		Prepared & Analyzed: 12/12/16											
Aluminum	< 20.0	50.0	ug/L	< 20.0				20									
Beryllium	< 2.00	5.00	"	< 2.00				20									
Calcium	23760	250	"	23790		0.1	20										
Iron	< 100	250	"	< 100				20									
Magnesium	1782	250	"	1782		0.01	20										
Manganese	< 2.00	5.00	"	< 2.00				20									
Strontium	218.0	10.0	"	217.6		0.2	20										
Zinc	84.68	20.0	"	84.56		0.1	20										
Silica (SiO2)	6448	1000	"	6445		0.05	20										
<b>Matrix Spike (1612058-MS1)</b>		Dilution Factor: 1		<b>Source: C161102-63</b>		Prepared & Analyzed: 12/12/16											
Aluminum	10350	50.0	ug/L	10100	< 20.0	103	70-130										
Beryllium	103.5	5.00	"	100	< 2.00	104	70-130										
Calcium	33470	250	"	10100	23790	96	70-130										
Iron	10350	250	"	10100	< 100	103	70-130										
Magnesium	11980	250	"	10100	1782	101	70-130										
Manganese	101.7	5.00	"	100	< 2.00	102	70-130										
Strontium	758.1	10.0	"	500	217.6	108	70-130										
Zinc	185.6	20.0	"	100	84.56	101	70-130										
Silica (SiO2)	6475	1000	"		6445		70-130										

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

## Certificate of Analysis

TDF #: A-128

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612058 - No Lab Prep Reqd		<b>Water</b>							<b>ICPOE - PE Optima</b>
<b>Matrix Spike (1612058-MS2)</b>		Dilution Factor: 1		<b>Source: C161102-66</b>			Prepared & Analyzed: 12/12/16		
Aluminum	10830	50.0	ug/L	10100	623.2	101	70-130		
Beryllium	103.2	5.00	"	100	< 2.00	103	70-130		
Calcium	18020	250	"	10100	7751	102	70-130		
Iron	10430	250	"	10100	< 100	103	70-130		
Magnesium	12420	250	"	10100	2339	100	70-130		
Manganese	287.2	5.00	"	100	193.2	94	70-130		
Strontium	583.1	10.0	"	500	38.97	109	70-130		
Zinc	171.2	20.0	"	100	69.08	102	70-130		
Silica (SiO2)	5268	1000	"		5325		70-130		
Batch 1612061 - No Lab Prep Reqd		<b>Water</b>							<b>ICPOE - PE Optima</b>
<b>Method Blank (1612061-BLK1)</b>		Dilution Factor: 1		Prepared & Analyzed: 12/12/16					
Aluminum	< 20.0	50.0	ug/L						
Beryllium	< 2.00	5.00	"						
Calcium	< 100	250	"						
Iron	< 100	250	"						
Magnesium	< 100	250	"						
Manganese	< 2.00	5.00	"						
Strontium	< 2.00	10.0	"						
Zinc	< 10.0	20.0	"						
Silica (SiO2)	< 250	1000	"						
<b>Method Blank Spike (1612061-BS1)</b>		Dilution Factor: 1		Prepared & Analyzed: 12/12/16					
Aluminum	10460	50.0	ug/L	10100		104	85-115		
Beryllium	102.0	5.00	"	100		102	85-115		
Calcium	10190	250	"	10100		101	85-115		
Iron	10440	250	"	10100		103	85-115		
Magnesium	10310	250	"	10100		102	85-115		
Manganese	100.2	5.00	"	100		100	85-115		
Strontium	545.1	10.0	"	500		109	85-115		
Zinc	100.0	20.0	"	100		100	85-115		
Silica (SiO2)	< 250	1000	"				85-115		

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612061 - No Lab Prep Reqd		<i>Water</i>						ICPOE - PE Optima	
<b>Duplicate (1612061-DUP1)</b>		Dilution Factor: 1		Source: C161102-AX		Prepared & Analyzed: 12/12/16			
Aluminum	5872	50.0	ug/L		5958			1	20
Beryllium	< 2.00	5.00	"		< 2.00				20
Calcium	99200	250	"		100000			0.8	20
Iron	< 100	250	"		< 100				20
Magnesium	23030	250	"		23380			1	20
Manganese	3119	5.00	"		3149			1	20
Strontium	622.5	10.0	"		627.9			0.8	20
Zinc	739.9	20.0	"		737.6			0.3	20
Silica (SiO2)	11680	1000	"		11650			0.3	20
<b>Matrix Spike (1612061-MS1)</b>		Dilution Factor: 1		Source: C161102-AX		Prepared & Analyzed: 12/12/16			
Aluminum	16020	50.0	ug/L	10100	5958	100	70-130		
Beryllium	100.8	5.00	"	100	< 2.00	101	70-130		
Calcium	107600	250	"	10100	100000	75	70-130		
Iron	10150	250	"	10100	< 100	100	70-130		
Magnesium	32790	250	"	10100	23380	93	70-130		
Manganese	3143	5.00	"	100	3149	NR	70-130		
Strontium	1155	10.0	"	500	627.9	105	70-130		
Zinc	806.1	20.0	"	100	737.6	68	70-130		
Silica (SiO2)	11630	1000	"		11650		70-130		
<b>Matrix Spike (1612061-MS2)</b>		Dilution Factor: 1		Source: C161102-BA		Prepared & Analyzed: 12/12/16			
Aluminum	10480	50.0	ug/L	10100	< 20.0	104	70-130		
Beryllium	102.3	5.00	"	100	< 2.00	102	70-130		
Calcium	50110	250	"	10100	40370	96	70-130		
Iron	10360	250	"	10100	< 100	103	70-130		
Magnesium	13070	250	"	10100	2742	102	70-130		
Manganese	100.5	5.00	"	100	< 2.00	101	70-130		
Strontium	1347	10.0	"	500	816.8	106	70-130		
Zinc	102.8	20.0	"	100	< 10.0	103	70-130		
Silica (SiO2)	3430	1000	"		3442		70-130		

## Metals (Dissolved) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612066 - 1612061		<i>Water</i>						ICPOE - PE Optima	
<b>Serial Dilution (1612066-SRD1)</b>		Dilution Factor: 5	<b>Source: C161102-03</b>		Prepared: 12/09/16 Analyzed: 12/12/16				
Aluminum	201.5	250	ug/L		203.6		1	10	
Beryllium	< 10.0	25.0	"		< 2.00			10	
Calcium	12640	1250	"		12750		0.9	10	
Iron	< 500	1250	"		< 100.00			10	
Magnesium	1538	1250	"		1575		2	10	
Manganese	36.26	25.0	"		36.41		0.4	10	
Strontium	51.87	50.0	"		52.10		0.4	10	
Zinc	284.5	100	"		296.9		4	10	
Silica (SiO2)	5728	5000	"		5916		3	10	
<b>Serial Dilution (1612066-SRD2)</b>		Dilution Factor: 5	<b>Source: C161102-63</b>		Prepared & Analyzed: 12/12/16				
Aluminum	< 100	250	ug/L		< 20.00			10	
Beryllium	< 10.0	25.0	"		< 2.00			10	
Calcium	23260	1250	"		23790		2	10	
Iron	< 500	1250	"		< 100.00			10	
Magnesium	1759	1250	"		1782		1	10	
Manganese	< 10.0	25.0	"		< 2.00			10	
Strontium	215.6	50.0	"		217.6		1	10	
Zinc	84.83	100	"		84.56		0.3	10	
Silica (SiO2)	6233	5000	"		6445		3	10	
<b>Serial Dilution (1612066-SRD3)</b>		Dilution Factor: 5	<b>Source: C161102-AX</b>		Prepared & Analyzed: 12/12/16				
Aluminum	5817	250	ug/L		5958		2	10	
Beryllium	< 10.0	25.0	"		< 2.00			10	
Calcium	98170	1250	"		100000		2	10	
Iron	< 500	1250	"		< 100.00			10	
Magnesium	22880	1250	"		23380		2	10	
Manganese	3194	25.0	"		3149		1	10	
Strontium	621.9	50.0	"		627.9		1	10	
Zinc	744.6	100	"		737.6		0.9	10	
Silica (SiO2)	11460	5000	"		11650		2	10	

NOTE: %R = % Recovery, %R limits do not apply when sample levels exceed 4x the spike level.

RPD = Relative Percent Difference, %D = % Difference, DL = Detection Limit for OC sample

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
<b>ICPMS-PE DRC-II</b>									
Batch 1612018 - 200.2 - TR Metals							<b>Water</b>		
							<b>ICPMS-PE DRC-II</b>		
<b>Method Blank (1612018-BLK2)</b>		Dilution Factor: 5					Prepared: 12/05/16 Analyzed: 12/13/16		
Chromium	< 5.00	10.0	ug/L						
Nickel	< 2.50	5.00	"						
Copper	< 2.50	5.00	"						
Arsenic	< 2.50	10.0	"						
Selenium	< 5.00	10.0	"						
Silver	< 2.50	5.00	"						
Cadmium	< 0.500	1.00	"						
Antimony	< 2.50	5.00	"						
Thallium	< 5.00	10.0	"						
Lead	< 0.500	1.00	"						
<b>Duplicate (1612018-DUP2)</b>		Dilution Factor: 5		<b>Source: C161102-02</b>			Prepared: 12/05/16 Analyzed: 12/13/16		
Chromium	< 5.00	10.0	ug/L	< 5.00					20
Nickel	3.004	5.00	"	2.739		9			20
Copper	6.660	5.00	"	7.052		6			20
Arsenic	< 2.50	10.0	"	< 2.50					20
Selenium	< 5.00	10.0	"	< 5.00					20
Silver	< 2.50	5.00	"	< 2.50					20
Cadmium	0.7294	1.00	"	0.7089		3			20
Antimony	< 2.50	5.00	"	< 2.50					20
Thallium	< 5.00	10.0	"	< 5.00					20
Lead	27.15	1.00	"	27.55		1			20
<b>Matrix Spike (1612018-MS2)</b>		Dilution Factor: 5		<b>Source: C161102-02</b>			Prepared: 12/05/16 Analyzed: 12/13/16		
Chromium	372.9	10.0	ug/L	400	< 5.00	93	70-130		
Nickel	456.2	5.00	"	500	2.739	91	70-130		
Copper	292.9	5.00	"	300	7.052	95	70-130		
Arsenic	764.3	10.0	"	800	< 2.50	96	70-130		
Selenium	2086	10.0	"	2000	< 5.00	104	70-130		
Silver	72.81	5.00	"	75.0	< 2.50	97	70-130		
Cadmium	192.4	1.00	"	200	0.7089	96	70-130		
Antimony	773.7	5.00	"	800	< 2.50	97	70-130		
Thallium	1935	10.0	"	2000	< 5.00	97	70-130		
Lead	1011	1.00	"	1000	27.55	98	70-130		

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612018 - 200.2 - TR Metals		<i>Water</i>						ICPMS-PE DRC-II	
<b>Matrix Spike (1612018-MS4)</b>		Dilution Factor: 5	<b>Source: C161102-05</b>			Prepared: 12/05/16 Analyzed: 12/13/16			
Chromium	368.9	10.0	ug/L	400	< 5.00	92	70-130		
Nickel	455.4	5.00	"	500	< 2.50	91	70-130		
Copper	282.3	5.00	"	300	< 2.50	94	70-130		
Arsenic	773.2	10.0	"	800	< 2.50	97	70-130		
Selenium	2101	10.0	"	2000	< 5.00	105	70-130		
Silver	73.59	5.00	"	75.0	< 2.50	98	70-130		
Cadmium	197.2	1.00	"	200	< 0.500	99	70-130		
Antimony	785.0	5.00	"	800	< 2.50	98	70-130		
Thallium	1911	10.0	"	2000	11.86	95	70-130		
Lead	969.8	1.00	"	1000	< 0.500	97	70-130		
<b>Reference (1612018-SRM2)</b>		Dilution Factor: 2							Prepared: 12/05/16 Analyzed: 12/13/16
Chromium	970.9	40.0	ug/L	1000		97	85-115		
Nickel	977.1	20.0	"	1000		98	85-115		
Copper	1007	20.0	"	1000		101	85-115		
Arsenic	1985	40.0	"	2000		99	85-115		
Selenium	1110	40.0	"	1000		111	85-115		
Silver	252.2	20.0	"	250		101	85-115		
Cadmium	1006	4.00	"	1000		101	85-115		
Antimony	1969	20.0	"	2000		98	85-115		
Thallium	4887	40.0	"	5000		98	85-115		
Lead	1999	4.00	"	2000		100	85-115		
Batch 1612019 - 200.2 - TR Metals		<i>Water</i>						ICPMS-PE DRC-II	
<b>Method Blank (1612019-BLK2)</b>		Dilution Factor: 5							Prepared: 12/05/16 Analyzed: 12/14/16
Chromium	< 5.00	10.0	ug/L						
Nickel	< 2.50	5.00	"						
Copper	< 2.50	5.00	"						
Arsenic	< 2.50	10.0	"						
Selenium	< 5.00	10.0	"						
Silver	< 2.50	5.00	"						
Cadmium	< 0.500	1.00	"						
Antimony	< 2.50	5.00	"						
Thallium	< 5.00	10.0	"						
Lead	< 0.500	1.00	"						

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612019 - 200.2 - TR Metals		<i>Water</i>						ICPMS-PE DRC-II	
Duplicate (1612019-DUP2)		Dilution Factor: 5	Source: C161102-59			Prepared: 12/05/16 Analyzed: 12/14/16			
Chromium	< 5.00	10.0	ug/L		< 5.00				20
Nickel	< 2.50	5.00	"		< 2.50				20
Copper	< 2.50	5.00	"		< 2.50				20
Arsenic	< 2.50	10.0	"		< 2.50				20
Selenium	< 5.00	10.0	"		< 5.00				20
Silver	< 2.50	5.00	"		< 2.50				20
Cadmium	< 0.500	1.00	"		< 0.500				20
Antimony	< 2.50	5.00	"		< 2.50				20
Thallium	< 5.00	10.0	"		< 5.00				20
Lead	< 0.500	1.00	"		< 0.500				20
Matrix Spike (1612019-MS2)		Dilution Factor: 5	Source: C161102-59			Prepared: 12/05/16 Analyzed: 12/14/16			
Chromium	373.4	10.0	ug/L	400	< 5.00	93	70-130		
Nickel	465.0	5.00	"	500	< 2.50	93	70-130		
Copper	292.7	5.00	"	300	< 2.50	98	70-130		
Arsenic	757.4	10.0	"	800	< 2.50	95	70-130		
Selenium	2101	10.0	"	2000	< 5.00	105	70-130		
Silver	72.07	5.00	"	75.0	< 2.50	96	70-130		
Cadmium	194.6	1.00	"	200	< 0.500	97	70-130		
Antimony	789.9	5.00	"	800	< 2.50	99	70-130		
Thallium	1958	10.0	"	2000	< 5.00	98	70-130		
Lead	969.9	1.00	"	1000	< 0.500	97	70-130		
Matrix Spike (1612019-MS4)		Dilution Factor: 5	Source: C161102-62			Prepared: 12/05/16 Analyzed: 12/14/16			
Chromium	374.1	10.0	ug/L	400	< 5.00	94	70-130		
Nickel	471.6	5.00	"	500	< 2.50	94	70-130		
Copper	294.1	5.00	"	300	< 2.50	98	70-130		
Arsenic	748.3	10.0	"	800	< 2.50	94	70-130		
Selenium	2066	10.0	"	2000	< 5.00	103	70-130		
Silver	71.67	5.00	"	75.0	< 2.50	96	70-130		
Cadmium	196.3	1.00	"	200	< 0.500	98	70-130		
Antimony	786.5	5.00	"	800	< 2.50	98	70-130		
Thallium	1978	10.0	"	2000	11.17	98	70-130		
Lead	969.3	1.00	"	1000	< 0.500	97	70-130		

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Certificate of Analysis

TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612019 - 200.2 - TR Metals		<i>Water</i>						ICPMS-PE DRC-II	
Reference (1612019-SRM2)		Dilution Factor: 2						Prepared: 12/05/16 Analyzed: 12/14/16	
Chromium	968.7	40.0	ug/L	1000	97	85-115			
Nickel	978.0	20.0	"	1000	98	85-115			
Copper	1010	20.0	"	1000	101	85-115			
Arsenic	1964	40.0	"	2000	98	85-115			
Selenium	1090	40.0	"	1000	109	85-115			
Silver	245.8	20.0	"	250	98	85-115			
Cadmium	990.9	4.00	"	1000	99	85-115			
Antimony	1976	20.0	"	2000	99	85-115			
Thallium	4888	40.0	"	5000	98	85-115			
Lead	1988	4.00	"	2000	99	85-115			
Batch 1612040 - 200.2 - TR Metals		<i>Water</i>						ICPMS-PE DRC-II	
Method Blank (1612040-BLK2)		Dilution Factor: 5						Prepared: 12/07/16 Analyzed: 12/14/16	
Chromium	< 5.00	10.0	ug/L						
Nickel	5.335	5.00	"						
Copper	< 2.50	5.00	"						
Arsenic	< 2.50	10.0	"						
Selenium	< 5.00	10.0	"						
Silver	< 2.50	5.00	"						
Cadmium	< 0.500	1.00	"						
Antimony	< 2.50	5.00	"						
Thallium	< 5.00	10.0	"						
Lead	< 0.500	1.00	"						
Duplicate (1612040-DUP2)		Dilution Factor: 5		Source: C161102-AN				Prepared: 12/07/16 Analyzed: 12/14/16	
Chromium	< 5.00	10.0	ug/L	< 5.00					20
Nickel	5.368	5.00	"	12.93				83	20
Copper	46.72	5.00	"	46.76				0.09	20
Arsenic	< 2.50	10.0	"	< 2.50					20
Selenium	< 5.00	10.0	"	< 5.00					20
Silver	< 2.50	5.00	"	< 2.50					20
Cadmium	2.867	1.00	"	2.702				6	20
Antimony	< 2.50	5.00	"	< 2.50					20
Thallium	< 5.00	10.0	"	< 5.00					20
Lead	2.595	1.00	"	2.519				3	20

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612040 - 200.2 - TR Metals		<i>Water</i>						ICPMS-PE DRC-II	
<b>Matrix Spike (1612040-MS2)</b>		Dilution Factor: 5	<b>Source: C161102-AN</b>			Prepared: 12/07/16 Analyzed: 12/14/16			
Chromium	370.5	10.0	ug/L	400	< 5.00	93	70-130		
Nickel	453.9	5.00	"	500	12.93	88	70-130		
Copper	328.0	5.00	"	300	46.76	94	70-130		
Arsenic	751.1	10.0	"	800	< 2.50	94	70-130		
Selenium	2080	10.0	"	2000	< 5.00	104	70-130		
Silver	72.40	5.00	"	75.0	< 2.50	97	70-130		
Cadmium	197.6	1.00	"	200	2.702	97	70-130		
Antimony	789.6	5.00	"	800	< 2.50	99	70-130		
Thallium	1942	10.0	"	2000	< 5.00	97	70-130		
Lead	975.6	1.00	"	1000	2.519	97	70-130		
<b>Matrix Spike (1612040-MS4)</b>		Dilution Factor: 5	<b>Source: C161102-AQ</b>			Prepared: 12/07/16 Analyzed: 12/14/16			
Chromium	371.1	10.0	ug/L	400	< 5.00	93	70-130		
Nickel	454.6	5.00	"	500	< 2.50	91	70-130		
Copper	284.8	5.00	"	300	3.187	94	70-130		
Arsenic	750.5	10.0	"	800	< 2.50	94	70-130		
Selenium	2080	10.0	"	2000	< 5.00	104	70-130		
Silver	72.49	5.00	"	75.0	< 2.50	97	70-130		
Cadmium	196.8	1.00	"	200	< 0.500	98	70-130		
Antimony	778.1	5.00	"	800	< 2.50	97	70-130		
Thallium	1914	10.0	"	2000	12.53	95	70-130		
Lead	966.7	1.00	"	1000	1.334	97	70-130		
<b>Reference (1612040-SRM2)</b>		Dilution Factor: 2							Prepared: 12/07/16 Analyzed: 12/14/16
Chromium	974.0	40.0	ug/L	1000		97	85-115		
Nickel	980.1	20.0	"	1000		98	85-115		
Copper	1023	20.0	"	1000		102	85-115		
Arsenic	2019	40.0	"	2000		101	85-115		
Selenium	1139	40.0	"	1000		114	85-115		
Silver	251.5	20.0	"	250		101	85-115		
Cadmium	1016	4.00	"	1000		102	85-115		
Antimony	2007	20.0	"	2000		100	85-115		
Thallium	4897	40.0	"	5000		98	85-115		
Lead	2003	4.00	"	2000		100	85-115		

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612076 - 1612018		<i>Water</i>							ICPMS-PE DRC-II
<b>Serial Dilution (1612076-SRD1)</b>		Dilution Factor: 2	<b>Source: C161102-02</b>			Prepared: 12/05/16 Analyzed: 12/13/16			
Chromium	< 25.0	50.0	ug/L		< 5.00				10
Nickel	< 12.5	25.0	"		2.739				10
Copper	16.68	25.0	"		7.052		81		10
Arsenic	< 12.5	50.0	"		< 2.50				10
Selenium	< 25.0	50.0	"		< 5.00				10
Silver	< 12.5	25.0	"		< 2.50				10
Cadmium	< 2.50	5.00	"		0.7089				10
Antimony	< 12.5	25.0	"		< 2.50				10
Thallium	< 25.0	50.0	"		< 5.00				10
Lead	27.68	5.00	"		27.55		0.5		10
Batch 1612077 - 1612040		<i>Water</i>							ICPMS-PE DRC-II
<b>Serial Dilution (1612077-SRD1)</b>		Dilution Factor: 2	<b>Source: C161102-59</b>			Prepared: 12/05/16 Analyzed: 12/14/16			
Chromium	< 25.0	50.0	ug/L		< 5.00				10
Nickel	< 12.5	25.0	"		< 2.50				10
Copper	< 12.5	25.0	"		< 2.50				10
Arsenic	< 12.5	50.0	"		< 2.50				10
Selenium	< 25.0	50.0	"		< 5.00				10
Silver	< 12.5	25.0	"		< 2.50				10
Cadmium	< 2.50	5.00	"		< 0.50				10
Antimony	< 12.5	25.0	"		< 2.50				10
Thallium	< 25.0	50.0	"		< 5.00				10
Lead	< 2.50	5.00	"		< 0.50				10
<b>Serial Dilution (1612077-SRD2)</b>		Dilution Factor: 2	<b>Source: C161102-AN</b>			Prepared: 12/07/16 Analyzed: 12/14/16			
Chromium	< 25.0	50.0	ug/L		< 5.00				10
Nickel	27.00	25.0	"		12.93		71		10
Copper	48.52	25.0	"		46.76		4		10
Arsenic	< 12.5	50.0	"		< 2.50				10
Selenium	< 25.0	50.0	"		< 5.00				10
Silver	< 12.5	25.0	"		< 2.50				10
Cadmium	2.658	5.00	"		2.702		2		10
Antimony	< 12.5	25.0	"		< 2.50				10
Thallium	< 25.0	50.0	"		< 5.00				10
Lead	< 2.50	5.00	"		2.519				10

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
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**ICPOE - PE Optima**

Batch 1612018 - 200.2 - TR Metals

**Water****ICPOE - PE Optima**

<b>Method Blank (1612018-BLK1)</b>		Dilution Factor: 1		Prepared: 12/05/16 Analyzed: 12/13/16					
Aluminum	< 20.0	50.0	ug/L						
Beryllium	< 2.00	5.00	"						
Calcium	< 100	250	"						
Iron	< 100	250	"						
Magnesium	< 100	250	"						
Manganese	< 2.00	5.00	"						
Silica (SiO2)	< 250	1000	"						
Zinc	< 10.0	20.0	"						
Strontium	< 2.00	10.0	"						

<b>Duplicate (1612018-DUP1)</b>		Dilution Factor: 1		<b>Source: C161102-02</b>		Prepared: 12/05/16 Analyzed: 12/13/16		
Aluminum	298.0	50.0	ug/L	294.7		1	20	
Beryllium	< 2.00	5.00	"	< 2.00				20
Calcium	12930	250	"	12910		0.2	20	
Iron	170.4	250	"	181.5		6	20	
Magnesium	1569	250	"	1565		0.3	20	
Manganese	47.17	5.00	"	43.91		7	20	
Silica (SiO2)	6147	1000	"	6158		0.2	20	
Zinc	291.2	20.0	"	293.0		0.6	20	
Strontium	52.61	10.0	"	52.29		0.6	20	

<b>Matrix Spike (1612018-MS1)</b>		Dilution Factor: 1		<b>Source: C161102-02</b>		Prepared: 12/05/16 Analyzed: 12/13/16		
Aluminum	2224	50.0	ug/L	2000	294.7	96	70-130	
Beryllium	210.3	5.00	"	200	< 2.00	105	70-130	
Calcium	13800	250	"	1000	12910	89	70-130	
Iron	3180	250	"	3000	181.5	100	70-130	
Magnesium	3482	250	"	2000	1565	96	70-130	
Manganese	254.9	5.00	"	200	43.91	106	70-130	
Silica (SiO2)	8288	1000	"	2000	6158	107	70-130	
Zinc	496.9	20.0	"	200	293.0	102	70-130	
Strontium	258.5	10.0	"	200	52.29	103	70-130	

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612018 - 200.2 - TR Metals		<i>Water</i>						<b>ICPOE - PE Optima</b>	
<b>Matrix Spike (1612018-MS3)</b>		Dilution Factor: 1		<b>Source: C161102-05</b>			Prepared: 12/05/16 Analyzed: 12/13/16		
Aluminum	1980	50.0	ug/L	2000	21.37	98	70-130		
Beryllium	206.9	5.00	"	200	< 2.00	103	70-130		
Calcium	59050	250	"	1000	57670	138	70-130		
Iron	3022	250	"	3000	< 100	101	70-130		
Magnesium	7623	250	"	2000	5675	97	70-130		
Manganese	215.4	5.00	"	200	7.475	104	70-130		
Silica (SiO2)	5789	1000	"	2000	3704	104	70-130		
Zinc	294.8	20.0	"	200	94.74	100	70-130		
Strontium	585.9	10.0	"	200	374.9	106	70-130		
<b>Reference (1612018-SRM1)</b>		Dilution Factor: 1		Prepared: 12/05/16 Analyzed: 12/13/16					
Aluminum	988.7	50.0	ug/L	1000		99	85-115		
Beryllium	1046	5.00	"	1000		105	85-115		
Calcium	966.9	250	"	1000		97	85-115		
Iron	1044	250	"	1000		104	85-115		
Magnesium	959.6	250	"	1000		96	85-115		
Manganese	1053	5.00	"	1000		105	85-115		
Silica (SiO2)	4947	1000	"	5000		99	85-115		
Zinc	1029	20.0	"	1000		103	85-115		
Strontium	1043	10.0	"	1000		104	85-115		
Batch 1612019 - 200.2 - TR Metals		<i>Water</i>						<b>ICPOE - PE Optima</b>	
<b>Method Blank (1612019-BLK1)</b>		Dilution Factor: 1		Prepared: 12/05/16 Analyzed: 12/13/16					
Aluminum	< 20.0	50.0	ug/L						
Beryllium	< 2.00	5.00	"						
Calcium	< 100	250	"						
Iron	< 100	250	"						
Magnesium	< 100	250	"						
Manganese	< 2.00	5.00	"						
Silica (SiO2)	< 250	1000	"						
Zinc	< 10.0	20.0	"						
Strontium	< 2.00	10.0	"						

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612019 - 200.2 - TR Metals		<i>Water</i>						ICPOE - PE Optima	
<b>Duplicate (1612019-DUP1)</b>		Dilution Factor: 1	<b>Source: C161102-59</b>			Prepared: 12/05/16 Analyzed: 12/13/16			
Aluminum	< 20.0	50.0	ug/L		< 20.0				20
Beryllium	< 2.00	5.00	"		< 2.00				20
Calcium	23930	250	"		23880			0.2	20
Iron	< 100	250	"		< 100				20
Magnesium	1778	250	"		1767			0.6	20
Manganese	< 2.00	5.00	"		< 2.00				20
Silica (SiO2)	6442	1000	"		6459			0.3	20
Zinc	79.16	20.0	"		80.18			1	20
Strontium	217.1	10.0	"		215.5			0.8	20
<b>Matrix Spike (1612019-MS1)</b>		Dilution Factor: 1	<b>Source: C161102-59</b>			Prepared: 12/05/16 Analyzed: 12/13/16			
Aluminum	1936	50.0	ug/L	2000	< 20.0	97	70-130		
Beryllium	207.7	5.00	"	200	< 2.00	104	70-130		
Calcium	24590	250	"	1000	23880	71	70-130		
Iron	2919	250	"	3000	< 100	97	70-130		
Magnesium	3651	250	"	2000	1767	94	70-130		
Manganese	207.2	5.00	"	200	< 2.00	104	70-130		
Silica (SiO2)	8537	1000	"	2000	6459	104	70-130		
Zinc	282.5	20.0	"	200	80.18	101	70-130		
Strontium	417.7	10.0	"	200	215.5	101	70-130		
<b>Matrix Spike (1612019-MS3)</b>		Dilution Factor: 1	<b>Source: C161102-62</b>			Prepared: 12/05/16 Analyzed: 12/13/16			
Aluminum	1933	50.0	ug/L	2000	< 20.0	97	70-130		
Beryllium	206.7	5.00	"	200	< 2.00	103	70-130		
Calcium	24430	250	"	1000	23660	76	70-130		
Iron	2917	250	"	3000	< 100	97	70-130		
Magnesium	3647	250	"	2000	1765	94	70-130		
Manganese	207.4	5.00	"	200	< 2.00	104	70-130		
Silica (SiO2)	8488	1000	"	2000	6392	105	70-130		
Zinc	279.9	20.0	"	200	79.29	100	70-130		
Strontium	419.7	10.0	"	200	216.1	102	70-130		

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

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## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612019 - 200.2 - TR Metals		<i>Water</i>						<b>ICPOE - PE Optima</b>	
<b>Reference (1612019-SRM1)</b>		Dilution Factor: 1						Prepared: 12/05/16 Analyzed: 12/13/16	
Aluminum	980.8	50.0	ug/L	1000	98	85-115			
Beryllium	1035	5.00	"	1000	104	85-115			
Calcium	951.5	250	"	1000	95	85-115			
Iron	1013	250	"	1000	101	85-115			
Magnesium	954.1	250	"	1000	95	85-115			
Manganese	1041	5.00	"	1000	104	85-115			
Silica (SiO2)	4872	1000	"	5000	97	85-115			
Zinc	1019	20.0	"	1000	102	85-115			
Strontium	1049	10.0	"	1000	105	85-115			
Batch 1612040 - 200.2 - TR Metals		<i>Water</i>						<b>ICPOE - PE Optima</b>	
<b>Method Blank (1612040-BLK1)</b>		Dilution Factor: 1						Prepared: 12/07/16 Analyzed: 12/14/16	
Aluminum	< 20.0	50.0	ug/L						
Beryllium	< 2.00	5.00	"						
Calcium	< 100	250	"						
Iron	< 100	250	"						
Magnesium	< 100	250	"						
Manganese	< 2.00	5.00	"						
Silica (SiO2)	< 250	1000	"						
Zinc	< 10.0	20.0	"						
Strontium	< 2.00	10.0	"						
<b>Duplicate (1612040-DUP1)</b>		Dilution Factor: 1	<b>Source: C161102-AN</b>			Prepared: 12/07/16 Analyzed: 12/14/16			
Aluminum	361.6	50.0	ug/L	352.5		3	20		
Beryllium	< 2.00	5.00	"	< 2.00					
Calcium	5842	250	"	5852		0.2	20		
Iron	146.4	250	"	147.4		0.7	20		
Magnesium	698.3	250	"	701.9		0.5	20		
Manganese	348.1	5.00	"	346.3		0.5	20		
Silica (SiO2)	2233	1000	"	2215		0.8	20		
Zinc	825.1	20.0	"	819.0		0.7	20		
Strontium	47.18	10.0	"	47.38		0.4	20		

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612040 - 200.2 - TR Metals		<i>Water</i>							ICPOE - PE Optima
<b>Matrix Spike (1612040-MS1)</b>		Dilution Factor: 1	<b>Source: C161102-AN</b>			Prepared: 12/07/16 Analyzed: 12/14/16			
Aluminum	2304	50.0	ug/L	2000	352.5	98	70-130		
Beryllium	208.6	5.00	"	200	< 2.00	104	70-130		
Calcium	6770	250	"	1000	5852	92	70-130		
Iron	3135	250	"	3000	147.4	100	70-130		
Magnesium	2635	250	"	2000	701.9	97	70-130		
Manganese	551.0	5.00	"	200	346.3	102	70-130		
Silica (SiO2)	4229	1000	"	2000	2215	101	70-130		
Zinc	1018	20.0	"	200	819.0	100	70-130		
Strontium	253.9	10.0	"	200	47.38	103	70-130		
<b>Matrix Spike (1612040-MS3)</b>		Dilution Factor: 1	<b>Source: C161102-AQ</b>			Prepared: 12/07/16 Analyzed: 12/14/16			
Aluminum	3102	50.0	ug/L	2000	1034	103	70-130		
Beryllium	206.6	5.00	"	200	< 2.00	103	70-130		
Calcium	58180	250	"	1000	57000	118	70-130		
Iron	4118	250	"	3000	1090	101	70-130		
Magnesium	7436	250	"	2000	5443	100	70-130		
Manganese	222.0	5.00	"	200	14.67	104	70-130		
Silica (SiO2)	9178	1000	"	2000	6554	131	70-130		
Zinc	223.8	20.0	"	200	24.19	100	70-130		
Strontium	729.7	10.0	"	200	530.3	100	70-130		
<b>Reference (1612040-SRM1)</b>		Dilution Factor: 1	Prepared: 12/07/16 Analyzed: 12/14/16						
Aluminum	1006	50.0	ug/L	1000		101	85-115		
Beryllium	1051	5.00	"	1000		105	85-115		
Calcium	1007	250	"	1000		101	85-115		
Iron	1075	250	"	1000		107	85-115		
Magnesium	978.8	250	"	1000		98	85-115		
Manganese	1057	5.00	"	1000		106	85-115		
Silica (SiO2)	4935	1000	"	5000		99	85-115		
Zinc	1023	20.0	"	1000		102	85-115		
Strontium	1045	10.0	"	1000		105	85-115		

## Metals (Total Recov) by EPA 200/7000 Series Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1612068 - 1612019		<b>Water</b>						<b>ICPOE - PE Optima</b>	
<b>Serial Dilution (1612068-SRD1)</b>		Dilution Factor: 5	<b>Source: C161102-02</b>		Prepared: 12/05/16 Analyzed: 12/13/16				
Aluminum	294.6	250	ug/L		294.7			0.03	10
Beryllium	< 10.0	25.0	"		< 2.00				10
Calcium	12680	1250	"		12910			2	10
Iron	< 500	1250	"		181.5				10
Magnesium	1563	1250	"		1565			0.1	10
Manganese	44.20	25.0	"		43.91			0.6	10
Silica (SiO2)	6140	5000	"		6158			0.3	10
Zinc	286.7	100	"		293.0			2	10
Strontium	52.44	50.0	"		52.29			0.3	10
<b>Serial Dilution (1612068-SRD2)</b>		Dilution Factor: 5	<b>Source: C161102-59</b>		Prepared: 12/05/16 Analyzed: 12/13/16				
Aluminum	< 100	250	ug/L		< 20.00				10
Beryllium	< 10.0	25.0	"		< 2.00				10
Calcium	23510	1250	"		23880			2	10
Iron	< 500	1250	"		< 100.00				10
Magnesium	1780	1250	"		1767			0.7	10
Manganese	< 10.0	25.0	"		< 2.00				10
Silica (SiO2)	6290	5000	"		6459			3	10
Zinc	84.68	100	"		80.18			5	10
Strontium	214.8	50.0	"		215.5			0.3	10
Batch 1612072 - 1612040		<b>Water</b>						<b>ICPOE - PE Optima</b>	
<b>Serial Dilution (1612072-SRD1)</b>		Dilution Factor: 5	<b>Source: C161102-AN</b>		Prepared: 12/07/16 Analyzed: 12/14/16				
Aluminum	363.9	250	ug/L		352.5			3	10
Beryllium	< 10.0	25.0	"		< 2.00				10
Calcium	5723	1250	"		5852			2	10
Iron	< 500	1250	"		147.4				10
Magnesium	695.9	1250	"		701.9			0.9	10
Manganese	341.6	25.0	"		346.3			1	10
Silica (SiO2)	2173	5000	"		2215			2	10
Zinc	815.9	100	"		819.0			0.4	10
Strontium	46.64	50.0	"		47.38			2	10

NOTE: %R = % Recovery, %R limits do not apply when sample levels exceed 4x the spike level.

RPD = Relative Percent Difference, %D = % Difference, DL = Detection Limit for QC sample

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

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## Classical Chemistry by EPA/ASTM/APHA Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
<b>ESAT Dionex IC</b>									
Batch 1611029 - No Prep Req							<b>Water</b>		
							<b>ESAT Dionex IC</b>		
<b>Method Blank (1611029-BLK1)</b>									
Dilution Factor: 1							Prepared & Analyzed: 11/04/16		
Fluoride	< 0.1	0.2	mg/L						
Chloride	< 0.4	0.8	"						
Sulfate as SO4	< 1.0	2.0	"						
Nitrate/Nitrite as N	< 0.1	0.2	"						
<b>Method Blank Spike (1611029-BS1)</b>									
Dilution Factor: 1							Prepared & Analyzed: 11/04/16		
Fluoride	5.4	0.2	mg/L	5.00	107	90-110			
Chloride	27.1	0.8	"	25.0	109	90-110			
Sulfate as SO4	25.3	2.0	"	25.0	101	90-110			
Nitrate/Nitrite as N	10.4	0.2	"	10.0	104	90-110			
<b>Duplicate (1611029-DUP1)</b>									
Dilution Factor: 1							Prepared & Analyzed: 11/04/16		
Fluoride	0.2	0.2	mg/L	0.2			4	20	
Chloride	< 0.4	0.8	"	< 0.4				20	
Sulfate as SO4	37.5	2.0	"	37.3			0.4	20	
Nitrate/Nitrite as N	< 0.1	0.2	"	< 0.1				20	
<b>Matrix Spike (1611029-MS1)</b>									
Dilution Factor: 1							Prepared & Analyzed: 11/04/16		
Fluoride	5.4	0.2	mg/L	5.00	0.2	104	80-120		
Chloride	26.9	0.8	"	25.0	< 0.4	108	80-120		
Sulfate as SO4	64.7	2.0	"	25.0	37.3	110	80-120		
Nitrate/Nitrite as N	10.3	0.2	"	10.0	< 0.1	103	80-120		
<b>Matrix Spike (1611029-MS2)</b>									
Dilution Factor: 1							Prepared & Analyzed: 11/04/16		
Fluoride	5.3	0.2	mg/L	5.00	0.2	104	80-120		
Chloride	26.6	0.8	"	25.0	< 0.4	106	80-120		
Sulfate as SO4	99.9	2.0	"	25.0	72.4	110	80-120		
Nitrate/Nitrite as N	10.2	0.2	"	10.0	0.1	101	80-120		

## Classical Chemistry by EPA/ASTM/APHA Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1611030 - No Prep Req		<i>Water</i>							ESAT Dionex IC
<b>Method Blank (1611030-BLK1)</b>		Dilution Factor: 1							Prepared & Analyzed: 11/04/16
Fluoride	< 0.1	0.2	mg/L						
Chloride	< 0.4	0.8	"						
Sulfate as SO4	< 1.0	2.0	"						
Nitrate/Nitrite as N	< 0.1	0.2	"						
<b>Method Blank Spike (1611030-BS1)</b>		Dilution Factor: 1							Prepared & Analyzed: 11/04/16
Fluoride	5.4	0.2	mg/L	5.00	107	90-110			
Chloride	25.9	0.8	"	25.0	104	90-110			
Sulfate as SO4	25.3	2.0	"	25.0	101	90-110			
Nitrate/Nitrite as N	10.4	0.2	"	10.0	104	90-110			
<b>Duplicate (1611030-DUP1)</b>		Dilution Factor: 1							Prepared & Analyzed: 11/04/16
Fluoride	0.2	0.2	mg/L	0.2			0.6	20	
Chloride	< 0.4	0.8	"	< 0.4				20	
Sulfate as SO4	50.2	2.0	"	50.3			0.2	20	
Nitrate/Nitrite as N	< 0.1	0.2	"	< 0.1				20	
<b>Matrix Spike (1611030-MS1)</b>		Dilution Factor: 1							Prepared & Analyzed: 11/04/16
Fluoride	5.3	0.2	mg/L	5.00	0.2	102	80-120		
Chloride	25.2	0.8	"	25.0	< 0.4	101	80-120		
Sulfate as SO4	77.6	2.0	"	25.0	50.3	109	80-120		
Nitrate/Nitrite as N	10.1	0.2	"	10.0	< 0.1	101	80-120		
<b>Matrix Spike (1611030-MS2)</b>		Dilution Factor: 1							Prepared & Analyzed: 11/04/16
Fluoride	5.3	0.2	mg/L	5.00	0.2	103	80-120		
Chloride	25.7	0.8	"	25.0	< 0.4	103	80-120		
Sulfate as SO4	42.9	2.0	"	25.0	17.1	103	80-120		
Nitrate/Nitrite as N	10.2	0.2	"	10.0	< 0.1	102	80-120		

## Classical Chemistry by EPA/ASTM/APHA Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1611031 - No Prep Req		<i>Water</i>						ESAT Dionex IC	
<b>Method Blank (1611031-BLK1)</b>		Dilution Factor: 1						Prepared & Analyzed: 11/07/16	
Fluoride	< 0.1	0.2	mg/L						
Chloride	< 0.4	0.8	"						
Sulfate as SO4	< 1.0	2.0	"						
Nitrate/Nitrite as N	< 0.1	0.2	"						
<b>Method Blank Spike (1611031-BS1)</b>		Dilution Factor: 1						Prepared & Analyzed: 11/07/16	
Fluoride	5.3	0.2	mg/L	5.00	106	90-110			
Chloride	25.8	0.8	"	25.0	103	90-110			
Sulfate as SO4	25.2	2.0	"	25.0	101	90-110			
Nitrate/Nitrite as N	10.3	0.2	"	10.0	103	90-110			
<b>Duplicate (1611031-DUP1)</b>		Dilution Factor: 2		<b>Source: C161102-AV</b>		Prepared & Analyzed: 11/07/16			
Fluoride	0.9	0.4	mg/L	0.7			16	20	
Chloride	< 0.8	1.6	"	< 0.8				20	
Sulfate as SO4	387	4.0	"	386			0.2	20	
Nitrate/Nitrite as N	0.2	0.4	"	0.2			4	20	
<b>Matrix Spike (1611031-MS1)</b>		Dilution Factor: 2		<b>Source: C161102-AV</b>		Prepared & Analyzed: 11/07/16			
Fluoride	9.7	0.4	mg/L	10.0	0.7	89	80-120		
Chloride	49.5	1.6	"	50.0	< 0.8	99	80-120		
Sulfate as SO4	443	4.0	"	50.0	386	113	80-120		
Nitrate/Nitrite as N	20.1	0.4	"	20.0	0.2	99	80-120		
<b>Matrix Spike (1611031-MS2)</b>		Dilution Factor: 1		<b>Source: C161102-BZ</b>		Prepared & Analyzed: 11/07/16			
Fluoride	6.4	0.2	mg/L	5.00	1.5	99	80-120		
Chloride	25.0	0.8	"	25.0	< 0.4	100	80-120		
Sulfate as SO4	141	2.0	"	25.0	113	111	80-120		
Nitrate/Nitrite as N	10.1	0.2	"	10.0	< 0.1	101	80-120		

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

## Certificate of Analysis

TDF #:

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## Classical Chemistry by EPA/ASTM/APHA Methods - Quality Control

TechLaw, Inc. - ESAT Region 8

Analyte	Result	Det. Limit	Units	Spike Level	Source Result	%R	%R Limits	%D or RPD	%D or RPD Limit
Batch 1611064 - 1611029		<i>Water</i>						ESAT Dionex IC	
<b>Instrument Blank (1611064-IBL1)</b>		Dilution Factor: 1						Prepared & Analyzed: 11/04/16	
Fluoride	< 0.1	0.2	mg/L						
Chloride	< 0.4	0.8	"						
Sulfate as SO <sub>4</sub>	< 1.0	2.0	"						
Nitrate/Nitrite as N	< 0.1	0.2	"						
Batch 1611065 - 1611030		<i>Water</i>						ESAT Dionex IC	
<b>Instrument Blank (1611065-IBL1)</b>		Dilution Factor: 1						Prepared & Analyzed: 11/04/16	
Fluoride	< 0.1	0.2	mg/L						
Chloride	< 0.4	0.8	"						
Sulfate as SO <sub>4</sub>	< 1.0	2.0	"						
Nitrate/Nitrite as N	< 0.1	0.2	"						
Batch 1611066 - 1611031		<i>Water</i>						ESAT Dionex IC	
<b>Instrument Blank (1611066-IBL1)</b>		Dilution Factor: 1						Prepared & Analyzed: 11/07/16	
Fluoride	< 0.1	0.2	mg/L						
Chloride	< 0.4	0.8	"						
Sulfate as SO <sub>4</sub>	< 1.0	2.0	"						
Nitrate/Nitrite as N	< 0.1	0.2	"						

NOTE: %R = % Recovery, %R limits do not apply when sample levels exceed 4x the spike level.

RPD = Relative Percent Difference, %D = % Difference, DL = Detection Limit for QC sample

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: EPA 300.0Analysis Name: WC - Anions by Ion ChromatographyInstrument: ESAT Dionex ICWork Order: Nu C161102Analytical Sequence: 1611064 **Dissolved**Concentration Units: mg/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
		1	2	3	4		
Fluoride	0.00	0.00	0.00	0.00	0.00	1611029-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
	0.00	0.00	0.00	0.00	0.00	1611031-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
	0.00	0.00	0.00	0.00	0.00	1611030-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
Chloride	0.00	0.00	0.00	0.00	0.00	1611031-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
	0.00	0.00	0.00	0.00	0.00	1611030-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
	0.00	0.00	0.00	0.00	0.00	1611029-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
	0.10	0.00	0.12	0.13	0.00	1611029-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
Sulfate as SO <sub>4</sub>	0.10	0.00	0.12	0.13	0.00	1611031-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		
	0.10	0.00	0.12	0.13	0.00	1611031-BLK1	NA
		5	6	7	8		
		0.00				0.00	NA
		1	2	3	4		

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: EPA 300.0Analysis Name: WC - Anions by Ion ChromatographyInstrument: ESAT Dionex ICWork Order: Nu C161102Analytical Sequence: 1611064 **Dissolved**Concentration Units: mg/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
		1	2	3	4	1611030-BLK1	NA	
Sulfate as SO <sub>4</sub>	0.10	0.00	0.12	0.13	0.00	0.00	NA	2.00
		5	6	7	8			
		0.00						
		1	2	3	4			
Nitrate/Nitrite as N	0.00	0.00	0.00	0.00	0.00	0.00	NA	0.20
		5	6	7	8			
		0.00						
		1	2	3	4			
	0.00	0.00	0.00	0.00	0.00	0.00	NA	0.20
		5	6	7	8			
		0.00						
		1	2	3	4			
	0.00	0.00	0.00	0.00	0.00	0.00	NA	0.20
		5	6	7	8			
		0.00						
		1	2	3	4			

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: EPA 300.0

Analysis Name:

WC - Anions by Ion ChromatographyInstrument: ESAT Dionex IC

Work Order: Nu

C161102Analytical Sequence: 1611065 **Dissolved**Concentration Units: mg/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
Fluoride	0.00	1	2	3	4	1611029-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	0.20
		5	6	7	8		
		0.00					
	0.00	1	2	3	4	1611031-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	0.20
		5	6	7	8		
		0.00					
	0.00	1	2	3	4	1611030-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	0.20
		5	6	7	8		
		0.00					
Chloride	0.00	1	2	3	4	1611030-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	0.80
		5	6	7	8		
		0.00					
	0.00	1	2	3	4	1611029-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	0.80
		5	6	7	8		
		0.00					
	0.00	1	2	3	4	1611031-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	0.80
		5	6	7	8		
		0.00					
Sulfate as SO4	0.00	1	2	3	4	1611029-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	2.00
		5	6	7	8		
		0.00					
	0.00	1	2	3	4	1611031-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	2.00
		5	6	7	8		
		0.00					

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: EPA 300.0Analysis Name: WC - Anions by Ion ChromatographyInstrument: ESAT Dionex ICWork Order: Nu C161102Analytical Sequence: 1611065 **Dissolved**Concentration Units: mg/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
		1	2	3	4	1611030-BLK1	NA		
Sulfate as SO <sub>4</sub>	0.00	0.00	0.00	0.00	0.00	1611030-BLK1	NA	2.00	
		5	6	7	8				
	0.00	0.00	0.00	0.00	0.00	0.00	NA		
		5	6	7	8				
Nitrate/Nitrite as N	0.00	0.00	0.00	0.00	0.00	1611029-BLK1	NA	0.20	
		5	6	7	8				
	0.00	0.00	0.00	0.00	0.00	0.00	NA		
		5	6	7	8				
	0.00	0.00	0.00	0.00	0.00	1611031-BLK1	NA	0.20	
		5	6	7	8				
	0.00	0.00	0.00	0.00	0.00	0.00	NA		
		5	6	7	8				
	0.00	0.00	0.00	0.00	0.00	1611030-BLK1	NA	0.20	
		5	6	7	8				
	0.00	0.00	0.00	0.00	0.00	0.00	NA		
		5	6	7	8				

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: EPA 300.0

Analysis Name:

WC - Anions by Ion ChromatographyInstrument: ESAT Dionex IC

Work Order: Nu

C161102Analytical Sequence: 1611066 **Dissolved**Concentration Units: mg/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL	
Fluoride	0.00	1	2	3	4	1611030-BLK1	NA	0.20
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
	0.00	1	2	3	4	1611029-BLK1	NA	0.20
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
	0.00	1	2	3	4	1611031-BLK1	NA	0.20
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
Chloride	0.00	1	2	3	4	1611030-BLK1	NA	0.80
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
	0.00	1	2	3	4	1611029-BLK1	NA	0.80
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
	0.00	1	2	3	4	1611031-BLK1	NA	0.80
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
Sulfate as SO4	0.00	1	2	3	4	1611031-BLK1	NA	2.00
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			
	0.00	1	2	3	4	1611030-BLK1	NA	2.00
		0.00	0.00			0.00	NA	
	0.00	5	6	7	8			

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: EPA 300.0Analysis Name: WC - Anions by Ion ChromatographyInstrument: ESAT Dionex ICWork Order: Nu C161102Analytical Sequence: 1611066 **Dissolved**Concentration Units: mg/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
		1	2	3	4	1611029-BLK1	NA		
Sulfate as SO <sub>4</sub>	0.00	0.00	0.00			1611029-BLK1	NA	2.00	
		5	6	7	8				
	0.00	0.00	0.00			0.00	NA		
		5	6	7	8				
Nitrate/Nitrite as N	0.00	0.00	0.00			1611029-BLK1	NA	0.20	
		5	6	7	8				
	0.00	0.00	0.00			0.00	NA		
		5	6	7	8				
	0.00	0.00	0.00			1611031-BLK1	NA	0.20	
		5	6	7	8				
	0.00	0.00	0.00			0.00	NA		
		5	6	7	8				
	0.00	0.00	0.00			1611030-BLK1	NA	0.20	
		5	6	7	8				

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612065 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
		1	2	3	4	1612056-BLK1	NA	
Chromium	0.01	0.03	0.00	0.04	0.10	0.00	NA	2.00
		5	6	7	8			
		0.06	0.06					
		1	2	3	4	1612059-BLK1	NA	
	0.01	0.03	0.00	0.04	0.10	0.07	NA	2.00
		5	6	7	8			
		0.06	0.06					
		1	2	3	4	1612062-BLK1	NA	
	0.01	0.03	0.00	0.04	0.10	0.00	NA	2.00
		5	6	7	8			
		0.06	0.06					
		1	2	3	4	1612059-BLK1	NA	
Nickel	0.01	0.03	0.01	0.01	0.04	-0.05	NA	1.00
		5	6	7	8			
		0.01	0.02					
		1	2	3	4	1612062-BLK1	NA	
	0.01	0.03	0.01	0.01	0.04	0.00	NA	1.00
		5	6	7	8			
		0.01	0.02					
		1	2	3	4	1612056-BLK1	NA	
	0.01	0.03	0.01	0.01	0.04	-0.02	NA	1.00
		5	6	7	8			
		0.01	0.02					
		1	2	3	4	1612059-BLK1	NA	
	0.02	0.02	0.01	0.03	0.02	-0.05	NA	1.00
		5	6	7	8			
		0.01	0.01					
		1	2	3	4	1612062-BLK1	NA	
	0.02	0.02	0.01	0.03	0.02	0.00	NA	1.00
		5	6	7	8			
		0.01	0.01					

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612065 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
Copper	0.02	1	2	3	4	1612056-BLK1	NA
		0.02	0.01	0.03	0.02	-0.06	NA
	0.01	5	6	7	8		
		0.01	0.01				
Arsenic	0.07	1	2	3	4	1612059-BLK1	NA
		0.03	0.07	-0.09	0.06	-0.10	NA
	-0.19	5	6	7	8		
		-0.19	-0.03				
	0.07	1	2	3	4	1612062-BLK1	NA
		0.03	0.07	-0.09	0.06	-0.13	NA
	-0.19	5	6	7	8		
		-0.19	-0.03				
	0.07	1	2	3	4	1612056-BLK1	NA
		0.03	0.07	-0.09	0.06	0.02	NA
	-0.19	5	6	7	8		
		-0.19	-0.03				
Selenium	-0.01	1	2	3	4	1612056-BLK1	NA
		0.09	0.19	-0.01	0.11	-0.18	NA
	-0.08	5	6	7	8		
		-0.08	0.19				
	-0.01	1	2	3	4	1612062-BLK1	NA
		0.09	0.19	-0.01	0.11	0.02	NA
	-0.08	5	6	7	8		
		-0.08	0.19				
	-0.01	1	2	3	4	1612059-BLK1	NA
		0.09	0.19	-0.01	0.11	-0.07	NA
	-0.08	5	6	7	8		
		-0.08	0.19				
Silver	0.01	1	2	3	4	1612056-BLK1	NA
		0.01	0.01	0.01	0.01	0.02	NA
	0.01	5	6	7	8		
		0.01	0.00				

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612065 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
Silver	0.01	1	2	3	4	1612059-BLK1	NA
		0.01	0.01	0.01	0.01	0.00	NA
	0.01	5	6	7	8		
		0.01	0.00				
	0.01	1	2	3	4	1612062-BLK1	NA
		0.01	0.01	0.01	0.01	0.00	NA
	0.01	5	6	7	8		
		0.01	0.00				
Cadmium	0.00	1	2	3	4	1612056-BLK1	NA
		0.00	0.00	0.00	0.00	0.00	NA
	0.00	5	6	7	8		
		0.00	0.00				
	0.00	1	2	3	4	1612059-BLK1	NA
		0.00	0.00	0.00	0.00	-0.01	NA
	0.00	5	6	7	8		
		0.00	0.00				
	0.00	1	2	3	4	1612062-BLK1	NA
		0.00	0.00	0.00	0.00	0.02	NA
	0.00	5	6	7	8		
		0.00	0.00				
Antimony	0.16	1	2	3	4	1612059-BLK1	NA
		0.21	0.23	0.23	0.29	0.06	NA
	0.27	5	6	7	8		
		0.27	0.25				
	0.16	1	2	3	4	1612062-BLK1	NA
		0.21	0.23	0.23	0.29	-0.06	NA
	0.27	5	6	7	8		
		0.27	0.25				
	0.16	1	2	3	4	1612056-BLK1	NA
		0.21	0.23	0.23	0.29	0.10	NA
	0.27	5	6	7	8		
		0.27	0.25				

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

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## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612065 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Thallium	0.01	1	2	3	4	1612056-BLK1		2.00
		0.01	0.01	0.00	0.02	-0.07		
	0.01	5	6	7	8	2.00		
		0.01	0.01					
	0.01	1	2	3	4	1612059-BLK1		2.00
		0.01	0.01	0.00	0.02	-0.09		
	0.01	5	6	7	8	2.00		
		0.01	0.01					
	0.01	1	2	3	4	1612062-BLK1		2.00
		0.01	0.01	0.00	0.02	0.00		
	0.01	5	6	7	8	2.00		
		0.01	0.01					
Lead	0.00	1	2	3	4	1612062-BLK1		0.20
		0.01	0.01	0.01	0.01	-0.01		
	0.00	5	6	7	8	0.20		
		0.01	0.01					
	0.00	1	2	3	4	1612056-BLK1		0.20
		0.01	0.01	0.01	0.01	0.02		
	0.00	5	6	7	8	0.20		
		0.01	0.01					
	0.00	1	2	3	4	1612059-BLK1		0.20
		0.01	0.01	0.01	0.01	0.00		
	0.00	5	6	7	8	0.20		
		0.01	0.01					

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Diss. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612066 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Aluminum	-2.02	1	2	3	4	1612058-BLK1		50.00	
		-0.73	0.63	-1.33	-0.59	-2.71			
		5	6	7	8				
		-0.51	-1.19	-1.04	2.40				
	-2.02	1	2	3	4	1612061-BLK1		50.00	
		-0.73	0.63	-1.33	-0.59	-0.31			
		5	6	7	8				
		-0.51	-1.19	-1.04	2.40				
	-2.02	1	2	3	4	1612055-BLK1		50.00	
		-0.73	0.63	-1.33	-0.59	1.42			
		5	6	7	8				
		-0.51	-1.19	-1.04	2.40				
Beryllium	0.05	1	2	3	4	1612061-BLK1		5.00	
		0.06	0.07	0.03	0.03	0.03			
		5	6	7	8				
		0.10	0.03	0.05	0.04				
	0.05	1	2	3	4	1612058-BLK1		5.00	
		0.06	0.07	0.03	0.03	0.04			
		5	6	7	8				
		0.10	0.03	0.05	0.04				
	0.05	1	2	3	4	1612055-BLK1		5.00	
		0.06	0.07	0.03	0.03	-0.01			
		5	6	7	8				
		0.10	0.03	0.05	0.04				
Calcium	-0.24	1	2	3	4	1612058-BLK1		250.00	
		0.25	-0.91	5.20	6.86	-8.47			
		5	6	7	8				
		6.49	6.03	7.41	7.26				
	-0.24	1	2	3	4	1612055-BLK1		250.00	
		0.25	-0.91	5.20	6.86	-7.40			
		5	6	7	8				
		6.49	6.03	7.41	7.26				

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Diss. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612066 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
Calcium	-0.24	1	2	3	4	1612061-BLK1	NA
		0.25	-0.91	5.20	6.86	-8.65	NA
		5	6	7	8		
		6.49	6.03	7.41	7.26		
Iron	2.36	1	2	3	4	1612058-BLK1	NA
		28.29	36.44	12.94	17.17	8.65	NA
		5	6	7	8		
		10.55	4.52	21.75	18.29		
	2.36	1	2	3	4	1612061-BLK1	NA
		28.29	36.44	12.94	17.17	9.95	NA
		5	6	7	8		
		10.55	4.52	21.75	18.29		
	2.36	1	2	3	4	1612055-BLK1	NA
		28.29	36.44	12.94	17.17	41.77	NA
		5	6	7	8		
		10.55	4.52	21.75	18.29		
Magnesium	1.08	1	2	3	4	1612061-BLK1	NA
		0.65	0.21	0.01	1.01	-0.48	NA
		5	6	7	8		
		0.41	1.48	0.58	1.21		
	1.08	1	2	3	4	1612058-BLK1	NA
		0.65	0.21	0.01	1.01	-0.31	NA
		5	6	7	8		
		0.41	1.48	0.58	1.21		
	1.08	1	2	3	4	1612055-BLK1	NA
		0.65	0.21	0.01	1.01	0.46	NA
		5	6	7	8		
		0.41	1.48	0.58	1.21		
Manganese	0.03	1	2	3	4	1612055-BLK1	NA
		0.04	0.06	0.10	0.05	-0.03	NA
		5	6	7	8		
		0.03	0.06	0.07	0.08		

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Diss. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612066 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
		1	2	3	4		
Manganese	0.03	1	2	3	4	1612061-BLK1	NA
		0.04	0.06	0.10	0.05	-0.08	NA
		5	6	7	8		
		0.03	0.06	0.07	0.08		
	0.03	1	2	3	4	1612058-BLK1	NA
		0.04	0.06	0.10	0.05	-0.02	NA
		5	6	7	8		
		0.03	0.06	0.07	0.08		
Strontium	0.10	1	2	3	4	1612061-BLK1	NA
		0.00	0.04	0.07	0.19	0.07	NA
		5	6	7	8		
		0.09	0.12	0.04	0.09		
	0.10	1	2	3	4	1612055-BLK1	NA
		0.00	0.04	0.07	0.19	0.11	NA
		5	6	7	8		
		0.09	0.12	0.04	0.09		
	0.10	1	2	3	4	1612058-BLK1	NA
		0.00	0.04	0.07	0.19	0.12	NA
		5	6	7	8		
		0.09	0.12	0.04	0.09		
Zinc	-0.34	1	2	3	4	1612061-BLK1	NA
		0.06	-0.20	1.13	1.53	-0.22	NA
		5	6	7	8		
		0.40	0.01	0.15	1.72		
	-0.34	1	2	3	4	1612055-BLK1	NA
		0.06	-0.20	1.13	1.53	0.09	NA
		5	6	7	8		
		0.40	0.01	0.15	1.72		
	-0.34	1	2	3	4	1612058-BLK1	NA
		0.06	-0.20	1.13	1.53	1.08	NA
		5	6	7	8		
		0.40	0.01	0.15	1.72		

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

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## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Diss. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612066 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
		1	2	3	4		
Silica (SiO2)	1.05	-4.94	-3.51	-5.91	-5.56	1612058-BLK1	NA
		5	6	7	8		
		-6.66	-6.65	-8.00	-8.41	-9.37	NA
		1	2	3	4		
	1.05	-4.94	-3.51	-5.91	-5.56	1612055-BLK1	NA
		5	6	7	8		
		-6.66	-6.65	-8.00	-8.41	-8.09	NA
		1	2	3	4		
	1.05	-4.94	-3.51	-5.91	-5.56	1612061-BLK1	NA
		5	6	7	8		
		-6.66	-6.65	-8.00	-8.41	-10.37	NA
		1	2	3	4		

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612068 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Aluminum	1.68	1	2	3	4	1612040-BLK1		50.00	
		1.67	1.03	1.44	-0.22	2.00			
		5	6	7	8				
		1.94	2.04						
	1.68	1	2	3	4	1612018-BLK1		50.00	
		1.67	1.03	1.44	-0.22	1.42			
		5	6	7	8				
		1.94	2.04						
	1.68	1	2	3	4	1612019-BLK1		50.00	
		1.67	1.03	1.44	-0.22	1.46			
		5	6	7	8				
		1.94	2.04						
Beryllium	0.06	1	2	3	4	1612018-BLK1		5.00	
		-0.02	0.07	0.01	0.09	0.00			
		5	6	7	8				
		0.09	0.07						
	0.06	1	2	3	4	1612040-BLK1		5.00	
		-0.02	0.07	0.01	0.09	0.06			
		5	6	7	8				
		0.09	0.07						
	0.06	1	2	3	4	1612019-BLK1		5.00	
		-0.02	0.07	0.01	0.09	0.06			
		5	6	7	8				
		0.09	0.07						
Calcium	-19.80	1	2	3	4	1612018-BLK1		250.00	
		-20.35	-25.96	-22.84	-24.64	-44.49			
		5	6	7	8				
		-23.44	-25.12						
	-19.80	1	2	3	4	1612019-BLK1		250.00	
		-20.35	-25.96	-22.84	-24.64	-45.46			
		5	6	7	8				
		-23.44	-25.12						

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612068 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
Calcium	-19.80	1	2	3	4	1612040-BLK1	NA
		-20.35	-25.96	-22.84	-24.64	-5.74	250.00
		5	6	7	8		
		-23.44	-25.12				
Iron	-8.82	1	2	3	4	1612018-BLK1	NA
		1.90	28.67	10.37	11.20	28.86	250.00
		5	6	7	8		
		9.20	-5.12				
	-8.82	1	2	3	4	1612019-BLK1	NA
		1.90	28.67	10.37	11.20	-15.85	250.00
		5	6	7	8		
		9.20	-5.12				
	-8.82	1	2	3	4	1612040-BLK1	NA
		1.90	28.67	10.37	11.20	35.36	250.00
		5	6	7	8		
		9.20	-5.12				
Magnesium	-0.83	1	2	3	4	1612018-BLK1	NA
		0.29	-0.79	-0.22	-0.99	-2.04	250.00
		5	6	7	8		
		-0.22	-0.84				
	-0.83	1	2	3	4	1612019-BLK1	NA
		0.29	-0.79	-0.22	-0.99	-3.04	250.00
		5	6	7	8		
		-0.22	-0.84				
	-0.83	1	2	3	4	1612040-BLK1	NA
		0.29	-0.79	-0.22	-0.99	-1.09	250.00
		5	6	7	8		
		-0.22	-0.84				
Manganese	0.07	1	2	3	4	1612040-BLK1	NA
		0.08	0.10	0.11	0.10	-0.01	5.00
		5	6	7	8		
		0.10	0.10				

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612068 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Manganese	0.07	1	2	3	4	1612018-BLK1	NA	5.00	
		0.08	0.10	0.11	0.10	0.00	NA		
		5	6	7	8				
		0.10	0.10						
	0.07	1	2	3	4	1612019-BLK1	NA	5.00	
		0.08	0.10	0.11	0.10	0.00	NA		
		5	6	7	8				
		0.10	0.10						
Silica (SiO2)	-1.12	1	2	3	4	1612040-BLK1	NA	1,000.00	
		-4.66	-6.18	-4.63	-6.49	12.72	NA		
		5	6	7	8				
		-7.01	-7.74						
	-1.12	1	2	3	4	1612018-BLK1	NA	1,000.00	
		-4.66	-6.18	-4.63	-6.49	5.37	NA		
		5	6	7	8				
		-7.01	-7.74						
	-1.12	1	2	3	4	1612019-BLK1	NA	1,000.00	
		-4.66	-6.18	-4.63	-6.49	1.87	NA		
		5	6	7	8				
		-7.01	-7.74						
Zinc	0.67	1	2	3	4	1612040-BLK1	NA	20.00	
		-0.26	-0.46	0.24	0.53	-0.61	NA		
		5	6	7	8				
		0.88	-0.62						
	0.67	1	2	3	4	1612019-BLK1	NA	20.00	
		-0.26	-0.46	0.24	0.53	-1.29	NA		
		5	6	7	8				
		0.88	-0.62						
	0.67	1	2	3	4	1612018-BLK1	NA	20.00	
		-0.26	-0.46	0.24	0.53	-1.22	NA		
		5	6	7	8				
		0.88	-0.62						

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

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## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612068 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
		1	2	3	4	1612019-BLK1	NA		
Strontium	-0.03	1	-0.09	-0.13	-0.03	1612019-BLK1	NA	10.00	
		5	6	7	8				
		5	6	7	8	-0.10	NA		
		-0.06	-0.01						
	-0.03	1	2	3	4	1612018-BLK1	NA	10.00	
		-0.08	-0.09	-0.13	-0.03				
		5	6	7	8	-0.12	NA		
		-0.06	-0.01						
	-0.03	1	2	3	4	1612040-BLK1	NA	10.00	
		-0.08	-0.09	-0.13	-0.03				
		5	6	7	8	-0.06	NA		
		-0.06	-0.01						

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612072 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
	0.49	1	2	3	4	1612040-BLK1	NA	50.00	
		2.20	0.39	1.83		2.00	NA		
	0.49	5	6	7	8		50.00		
	0.49	1	2	3	4	1612018-BLK1	NA	50.00	
		2.20	0.39	1.83		1.42	NA		
	0.49	5	6	7	8		50.00		
	0.49	1	2	3	4	1612019-BLK1	NA	50.00	
		2.20	0.39	1.83		1.46	NA		
	0.01	5	6	7	8		5.00		
	0.01	1	2	3	4	1612018-BLK1	NA	5.00	
		0.04	-0.01	0.08		0.00	NA		
	0.01	5	6	7	8		5.00		
	0.01	1	2	3	4	1612040-BLK1	NA	5.00	
		0.04	-0.01	0.08		0.06	NA		
	0.01	5	6	7	8		5.00		
	0.01	1	2	3	4	1612019-BLK1	NA	5.00	
		0.04	-0.01	0.08		0.06	NA		
	0.01	5	6	7	8		5.00		
	0.81	1	2	3	4	1612018-BLK1	NA	250.00	
		3.08	1.97	1.02		-44.49	NA		
	0.81	5	6	7	8		250.00		
	0.81	1	2	3	4	1612019-BLK1	NA	250.00	
		3.08	1.97	1.02		-45.46	NA		
	0.81	5	6	7	8				

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612072 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
	0.81	1	2	3	4	1612040-BLK1	NA	250.00
		3.08	1.97	1.02		-5.74	NA	
	4.05	5	6	7	8		250.00	
		19.99	11.50	22.91		28.86		NA
	4.05	5	6	7	8		250.00	
		19.99	11.50	22.91		-15.85		NA
	4.05	5	6	7	8		250.00	
		19.99	11.50	22.91		35.36		NA
	-0.19	1	2	3	4	1612040-BLK1	NA	250.00
		0.34	0.79	0.39		-2.04	NA	
	-0.19	5	6	7	8		250.00	
		0.34	0.79	0.39		-3.04		NA
	-0.19	5	6	7	8		250.00	
		0.34	0.79	0.39		-1.09		NA
	0.04	1	2	3	4	1612040-BLK1	NA	5.00
		0.09	0.10	0.13		-0.01	NA	
		5	6	7	8			

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612072 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Manganese	0.04	1	2	3	4	1612018-BLK1	NA	5.00
		0.09	0.10	0.13		0.00	NA	
		5	6	7	8			
	0.04	1	2	3	4	1612019-BLK1	NA	5.00
		0.09	0.10	0.13		0.00	NA	
		5	6	7	8			
Silica (SiO2)	4.99	1	2	3	4	1612040-BLK1	NA	1,000.00
		-1.41	0.73	-0.92		12.72	NA	
		5	6	7	8			
	4.99	1	2	3	4	1612018-BLK1	NA	1,000.00
		-1.41	0.73	-0.92		5.37	NA	
		5	6	7	8			
	4.99	1	2	3	4	1612019-BLK1	NA	1,000.00
		-1.41	0.73	-0.92		1.87	NA	
		5	6	7	8			
Zinc	0.05	1	2	3	4	1612040-BLK1	NA	20.00
		-0.89	0.63	0.71		-0.61	NA	
		5	6	7	8			
	0.05	1	2	3	4	1612019-BLK1	NA	20.00
		-0.89	0.63	0.71		-1.29	NA	
		5	6	7	8			
	0.05	1	2	3	4	1612018-BLK1	NA	20.00
		-0.89	0.63	0.71		-1.22	NA	
		5	6	7	8			

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #: A-128

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.7Analysis Name: ICPOE Tot. Rec. MetalsInstrument: ICPOE - PE OptimaWork Order: Nu C161102Analytical Sequence: 1612072 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Strontium	-0.03	1	2	3	4	1612040-BLK1	NA	10.00
		-0.02	0.02	-0.05		-0.06	NA	
		5	6	7	8		10.00	
	-0.03	1	2	3	4	1612018-BLK1	NA	10.00
		-0.02	0.02	-0.05		-0.12	NA	
		5	6	7	8		10.00	
	-0.03	1	2	3	4	1612019-BLK1	NA	10.00
		-0.02	0.02	-0.05		-0.10	NA	
		5	6	7	8		10.00	

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612075 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Chromium	-0.01	1	2	3	4	1612056-BLK1		2.00
		-0.06	-0.07	-0.09		0.00	NA	
		5	6	7	8		2.00	
						0.00		NA
	-0.01	1	2	3	4	1612062-BLK1		2.00
		-0.06	-0.07	-0.09		0.00	NA	
		5	6	7	8		2.00	
						0.07		NA
	-0.01	1	2	3	4	1612059-BLK1		2.00
		-0.06	-0.07	-0.09		0.07	NA	
		5	6	7	8		2.00	
						0.07		NA
Nickel	0.00	1	2	3	4	1612059-BLK1		1.00
		0.00	0.00	0.01		-0.05	NA	
		5	6	7	8		1.00	
						-0.05		NA
	0.00	1	2	3	4	1612062-BLK1		1.00
		0.00	0.00	0.01		0.00	NA	
		5	6	7	8		1.00	
						0.00		NA
	0.00	1	2	3	4	1612056-BLK1		1.00
		0.00	0.00	0.01		-0.02	NA	
		5	6	7	8		1.00	
						-0.02		NA
Copper	0.01	1	2	3	4	1612056-BLK1		1.00
		0.00	0.00	0.02		-0.06	NA	
		5	6	7	8		1.00	
						-0.06		NA
	0.01	1	2	3	4	1612059-BLK1		1.00
		0.00	0.00	0.02		-0.05	NA	
		5	6	7	8		1.00	
						-0.05		NA

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612075 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
		1	2	3	4		
Copper	0.01	1	2	3	4	1612062-BLK1	NA
		0.00	0.00	0.02		0.00	NA
		5	6	7	8		
Arsenic	-0.15	1	2	3	4	1612056-BLK1	NA
		-0.17	-0.07	-0.09		0.02	NA
		5	6	7	8		
	-0.15	1	2	3	4	1612059-BLK1	NA
		-0.17	-0.07	-0.09		-0.10	NA
		5	6	7	8		
	-0.15	1	2	3	4	1612062-BLK1	NA
		-0.17	-0.07	-0.09		-0.13	NA
		5	6	7	8		
Selenium	0.07	1	2	3	4	1612056-BLK1	NA
		0.04	0.17	-0.03		-0.18	NA
		5	6	7	8		
	0.07	1	2	3	4	1612062-BLK1	NA
		0.04	0.17	-0.03		0.02	NA
		5	6	7	8		
	0.07	1	2	3	4	1612059-BLK1	NA
		0.04	0.17	-0.03		-0.07	NA
		5	6	7	8		
Silver	0.00	1	2	3	4	1612056-BLK1	NA
		0.00	0.00	0.00		0.02	NA
		5	6	7	8		

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612075 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)	PQL
Silver	0.00	1	2	3	4	1612059-BLK1	NA
		0.00	0.00	0.00		0.00	NA
		5	6	7	8		
	0.00	1	2	3	4	1612062-BLK1	NA
		0.00	0.00	0.00		0.00	NA
		5	6	7	8		
Cadmium	0.00	1	2	3	4	1612056-BLK1	NA
		0.01	0.00	0.00		0.00	NA
		5	6	7	8		
	0.00	1	2	3	4	1612059-BLK1	NA
		0.01	0.00	0.00		-0.01	NA
		5	6	7	8		
	0.00	1	2	3	4	1612062-BLK1	NA
		0.01	0.00	0.00		0.02	NA
		5	6	7	8		
Antimony	0.05	1	2	3	4	1612056-BLK1	NA
		0.07	0.04	0.06		0.10	NA
		5	6	7	8		
	0.05	1	2	3	4	1612059-BLK1	NA
		0.07	0.04	0.06		0.06	NA
		5	6	7	8		
	0.05	1	2	3	4	1612062-BLK1	NA
		0.07	0.04	0.06		-0.06	NA
		5	6	7	8		

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Diss. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612075 **Dissolved**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Thallium	0.00	1	2	3	4	1612062-BLK1	NA	2.00
		0.00	0.00	0.00		0.00	NA	
		5	6	7	8		2.00	
	0.00	1	2	3	4	1612056-BLK1	NA	2.00
		0.00	0.00	0.00		-0.07	NA	
		5	6	7	8		2.00	
	0.00	1	2	3	4	1612059-BLK1	NA	2.00
		0.00	0.00	0.00		-0.09	NA	
		5	6	7	8		2.00	
Lead	0.00	1	2	3	4	1612059-BLK1	NA	0.20
		0.00	-0.01	-0.01		0.00	NA	
		5	6	7	8		0.20	
	0.00	1	2	3	4	1612062-BLK1	NA	0.20
		0.00	-0.01	-0.01		-0.01	NA	
		5	6	7	8		0.20	
	0.00	1	2	3	4	1612056-BLK1	NA	0.20
		0.00	-0.01	-0.01		0.02	NA	
		5	6	7	8		0.20	

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612076 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
		1	2	3	4	NA	1612019-BLK2	
Chromium	-0.01	-0.06	-0.07	-0.09	-0.05	NA	0.04	2.00
		5	6	7	8			
		-0.05	-0.06					
		1	2	3	4	NA	1612018-BLK2	
	-0.01	-0.06	-0.07	-0.09	-0.05	NA	0.12	2.00
		5	6	7	8			
		-0.05	-0.06					
		1	2	3	4	NA	1612040-BLK2	
	-0.01	-0.06	-0.07	-0.09	-0.05	NA	0.23	2.00
		5	6	7	8			
		-0.05	-0.06					
		1	2	3	4	NA	1612040-BLK2	
	0.00	0.00	0.00	0.01	0.00	NA	1.07	1.00
		5	6	7	8			
		-0.01	0.00					
		1	2	3	4	NA	1612018-BLK2	
	0.00	0.00	0.00	0.01	0.00	NA	0.00	1.00
		5	6	7	8			
		-0.01	0.00					
		1	2	3	4	NA	1612019-BLK2	
	0.00	0.00	0.00	0.01	0.00	NA	-0.01	1.00
		5	6	7	8			
		-0.01	0.00					
		1	2	3	4	NA	1612019-BLK2	
	0.01	0.00	0.00	0.02	0.01	NA	0.01	1.00
		5	6	7	8			
		0.01	0.01					
		1	2	3	4	NA	1612018-BLK2	
	0.01	0.00	0.00	0.02	0.01	NA	0.05	1.00
		5	6	7	8			
		0.01	0.01					
		1	2	3	4	NA	1612018-BLK2	

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612076 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Copper	0.01	1	2	3	4	NA	1612040-BLK2	1.00	
		0.00	0.00	0.02	0.01	NA	0.07		
	0.01	5	6	7	8				
		0.01	0.01						
Arsenic	-0.15	1	2	3	4	NA	1612018-BLK2	2.00	
		-0.17	-0.07	-0.09	-0.09	NA	-0.27		
		5	6	7	8				
		-0.08	-0.14						
	-0.15	1	2	3	4	NA	1612019-BLK2	2.00	
		-0.17	-0.07	-0.09	-0.09	NA	-0.06		
		5	6	7	8				
		-0.08	-0.14						
	-0.15	1	2	3	4	NA	1612040-BLK2	2.00	
		-0.17	-0.07	-0.09	-0.09	NA	-0.39		
		5	6	7	8				
		-0.08	-0.14						
Selenium	0.07	1	2	3	4	NA	1612018-BLK2	2.00	
		0.04	0.17	-0.03	-0.02	NA	0.17		
		5	6	7	8				
		0.01	0.10						
	0.07	1	2	3	4	NA	1612040-BLK2	2.00	
		0.04	0.17	-0.03	-0.02	NA	-0.21		
		5	6	7	8				
		0.01	0.10						
	0.07	1	2	3	4	NA	1612019-BLK2	2.00	
		0.04	0.17	-0.03	-0.02	NA	-0.06		
		5	6	7	8				
		0.01	0.10						
Silver	0.00	1	2	3	4	NA	1612040-BLK2	1.00	
		0.00	0.00	0.00	0.00	NA	0.00		
		5	6	7	8				
		0.00	0.00						

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612076 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Silver	0.00	1	2	3	4	NA	1612019-BLK2	1.00	
		0.00	0.00	0.00	0.00	NA	0.00		
	0.00	5	6	7	8				
		0.00	0.00						
	0.00	1	2	3	4	NA	1612018-BLK2	1.00	
		0.00	0.00	0.00	0.00	NA	0.00		
	0.00	5	6	7	8				
		0.00	0.00						
Cadmium	0.00	1	2	3	4	NA	1612040-BLK2	0.20	
		0.01	0.00	0.00	0.00	NA	0.00		
	0.00	5	6	7	8				
		0.00	0.01						
	0.00	1	2	3	4	NA	1612019-BLK2	0.20	
		0.01	0.00	0.00	0.00	NA	0.00		
	0.00	5	6	7	8				
		0.00	0.01						
	0.00	1	2	3	4	NA	1612018-BLK2	0.20	
		0.01	0.00	0.00	0.00	NA	0.00		
	0.00	5	6	7	8				
		0.00	0.01						
	0.05	1	2	3	4	NA	1612040-BLK2	1.00	
		0.07	0.04	0.06	0.05	NA	0.05		
	0.05	5	6	7	8				
		0.07	0.06						
	0.05	1	2	3	4	NA	1612018-BLK2	1.00	
		0.07	0.04	0.06	0.05	NA	-0.05		
	0.05	5	6	7	8				
		0.07	0.06						
	0.05	1	2	3	4	NA	1612019-BLK2	1.00	
		0.07	0.04	0.06	0.05	NA	0.03		
	0.05	5	6	7	8				
		0.07	0.06						

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612076 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Thallium	0.00	1	2	3	4	NA	1612019-BLK2	2.00
		0.00	0.00	0.00	0.40	NA	-0.07	
	0.16	5	6	7	8			
		0.16	0.14			NA	-0.05	
	0.00	1	2	3	4		2.00	
		0.00	0.00	0.00	0.40			
	0.16	5	6	7	8			
		0.16	0.14			NA		-0.01
	0.00	1	2	3	4		2.00	
		0.00	0.00	0.00	0.40			
	0.16	5	6	7	8			
		0.16	0.14			NA		0.01
Lead	0.00	1	2	3	4	NA	1612018-BLK2	0.20
		0.00	-0.01	-0.01	0.00	NA	0.01	
	0.00	5	6	7	8			
		0.00	0.00			NA	0.00	
	0.00	1	2	3	4	NA	1612019-BLK2	0.20
		0.00	-0.01	-0.01	0.00	NA	0.00	
	0.00	5	6	7	8			
		0.00	0.00			NA	0.01	
	0.00	1	2	3	4	NA	1612040-BLK2	0.20
		0.00	-0.01	-0.01	0.00	NA	0.01	
	0.00	5	6	7	8			
		0.00	0.00			NA	0.01	

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612077 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Chromium	-0.06	1	2	3	4	NA	1612019-BLK2	2.00	
		0.00	-0.03	-0.02	-0.02	NA	0.04		
		5	6	7	8				
		-0.01	-0.06						
	-0.06	1	2	3	4	NA	1612018-BLK2	2.00	
		0.00	-0.03	-0.02	-0.02	NA	0.12		
		5	6	7	8				
		-0.01	-0.06						
	-0.06	1	2	3	4	NA	1612040-BLK2	2.00	
		0.00	-0.03	-0.02	-0.02	NA	0.23		
		5	6	7	8				
		-0.01	-0.06						
Nickel	0.00	1	2	3	4	NA	1612040-BLK2	1.00	
		0.00	0.00	0.00	-0.01	NA	1.07		
		5	6	7	8				
		-0.01	-0.01						
	0.00	1	2	3	4	NA	1612018-BLK2	1.00	
		0.00	0.00	0.00	-0.01	NA	0.00		
		5	6	7	8				
		-0.01	-0.01						
	0.00	1	2	3	4	NA	1612019-BLK2	1.00	
		0.00	0.00	0.00	-0.01	NA	-0.01		
		5	6	7	8				
		-0.01	-0.01						
Copper	0.01	1	2	3	4	NA	1612019-BLK2	1.00	
		0.00	0.01	-0.01	-0.01	NA	0.01		
		5	6	7	8				
		0.00	0.00						
	0.01	1	2	3	4	NA	1612018-BLK2	1.00	
		0.00	0.01	-0.01	-0.01	NA	0.05		
		5	6	7	8				
		0.00	0.00						

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612077 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
Copper	0.01	1	2	3	4	NA	1612040-BLK2	1.00
		0.00	0.01	-0.01	-0.01	NA	0.07	
	-0.19	5	6	7	8			
		0.00	0.00			NA	-0.27	2.00
Arsenic	-0.19	1	2	3	4	NA	1612018-BLK2	2.00
		-0.05	-0.08	-0.04	-0.08			
	-0.12	5	6	7	8			
		-0.05				NA	-0.06	
	-0.19	1	2	3	4	NA	1612019-BLK2	2.00
		-0.05	-0.08	-0.04	-0.08			
	-0.12	5	6	7	8			
		-0.05				NA	-0.39	
	-0.19	1	2	3	4	NA	1612040-BLK2	2.00
		-0.05	-0.08	-0.04	-0.08			
	-0.12	5	6	7	8			
		-0.05				NA	-0.06	
Selenium	0.07	1	2	3	4	NA	1612019-BLK2	2.00
		-0.07	-0.27	-0.23	-0.07	NA	-0.06	
	-0.11	5	6	7	8			
		-0.11	-0.22			NA	0.17	
	0.07	1	2	3	4	NA	1612018-BLK2	2.00
		-0.07	-0.27	-0.23	-0.07			
	-0.11	5	6	7	8			
		-0.11	-0.22			NA	-0.21	
	0.07	1	2	3	4	NA	1612040-BLK2	2.00
		-0.07	-0.27	-0.23	-0.07			
	-0.11	5	6	7	8			
		-0.11	-0.22			NA	0.00	
Silver	0.01	1	2	3	4	NA	1612018-BLK2	1.00
		0.00	0.00	0.00	0.01	NA	0.00	
	0.01	5	6	7	8			
		0.01	0.00			NA	0.00	

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612077 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL
		1	2	3	4	NA	1612040-BLK2	
Silver	0.01	0.00	0.00	0.00	0.01	NA	0.00	1.00
		5	6	7	8			
		0.01	0.00					
		1	2	3	4	NA	1612019-BLK2	
	0.01	0.00	0.00	0.00	0.01	NA	0.00	1.00
		5	6	7	8			
		0.01	0.00					
		1	2	3	4	NA	1612040-BLK2	
Cadmium	0.00	0.00	0.00	0.00	0.00	NA	0.00	0.20
		5	6	7	8			
		0.00	0.00					
		1	2	3	4	NA	1612019-BLK2	
	0.00	0.00	0.00	0.00	0.00	NA	0.00	0.20
		5	6	7	8			
		0.00	0.00					
		1	2	3	4	NA	1612018-BLK2	
	0.00	0.00	0.00	0.00	0.00	NA	0.00	0.20
		5	6	7	8			
		0.00	0.00					
		1	2	3	4	NA	1612040-BLK2	
Antimony	0.14	0.20	0.21	0.20	0.21	NA	0.05	1.00
		5	6	7	8			
		0.20	0.19					
		1	2	3	4	NA	1612018-BLK2	
	0.14	0.20	0.21	0.20	0.21	NA	-0.05	1.00
		5	6	7	8			
		0.20	0.19					
		1	2	3	4	NA	1612019-BLK2	
	0.14	0.20	0.21	0.20	0.21	NA	0.03	1.00
		5	6	7	8			
		0.20	0.19					

Project Name: Bonita Peak\_Water 4\_OCT\_2016\_A128

Certificate of Analysis

TDF #:

A-128

## TechLaw Inc., ESAT Region 8

## INORGANIC ANALYSES DATA SHEET

## Initial and Continuing Calibration Blanks

Analytical Method: 200.8Analysis Name: ICPMS Tot. Rec. MetalsInstrument: ICPMS-PE DRC-IIWork Order: Nu C161102Analytical Sequence: 1612077 **Total Recoverable**Concentration Units: ug/L

Blank criteria = +/- 5x analyte MDL (+/- PQL)

Analyte	Initial Calibration Blank (1 & 2)	Continuing Calibration Blanks				Method Blank (Batch ID)		PQL	
Thallium	0.01	1	2	3	4	NA	1612019-BLK2	2.00	
		0.37	0.10	0.07	0.52	NA	-0.07		
		5	6	7	8				
		0.18	0.14						
	0.01	1	2	3	4	NA	1612040-BLK2	2.00	
		0.37	0.10	0.07	0.52	NA	-0.05		
		5	6	7	8				
		0.18	0.14						
	0.01	1	2	3	4	NA	1612018-BLK2	2.00	
		0.37	0.10	0.07	0.52	NA	-0.01		
		5	6	7	8				
		0.18	0.14						
Lead	0.00	1	2	3	4	NA	1612018-BLK2	0.20	
		0.00	0.00	0.00	0.00	NA	0.01		
		5	6	7	8				
		0.00	0.00						
	0.00	1	2	3	4	NA	1612019-BLK2	0.20	
		0.00	0.00	0.00	0.00	NA	0.00		
		5	6	7	8				
		0.00	0.00						
	0.00	1	2	3	4	NA	1612040-BLK2	0.20	
		0.00	0.00	0.00	0.00	NA	0.01		
		5	6	7	8				
		0.00	0.00						

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ESAT Dionex IC

Method: EPA 300.0

Analysis Name: WC - Anions by Ion Chromatography 2013

Sequence: 1611064

Work Order: C161102

Units: mg/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Chloride	40.0	43.5	108.8	1			2			3		
				40.0	43.5	108.8	40.0	43.4	108.5	40.0	43.5	108.8
				4			5			6		
				40.0	42.0	105.0	40.0	41.7	104.3			
				7			8			9		
Fluoride	4.00	4.3	107.5	1			2			3		
				4.00	4.3	107.5	4.00	4.2	105.0	4.00	4.3	107.5
				4			5			6		
				4.00	4.1	102.5	4.00	4.1	102.5			
				7			8			9		
Nitrate/Nitrite as N	20.0	21.2	106.0	1			2			3		
				20.0	21.0	105.0	20.0	21.2	106.0	20.0	21.3	106.5
				4			5			6		
				20.0	20.3	101.5	20.0	20.4	102.0			
				7			8			9		
Sulfate as SO4	100	103	103.0	1			2			3		
				100	103	103.0	100	103	103.0	100	103	103.0
				4			5			6		
				100	98.5	98.5	100	98.2	98.2			
				7			8			9		

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ESAT Dionex IC

Method: EPA 300.0

Analysis Name: WC - Anions by Ion Chromatography 2013

Sequence: 1611065

Work Order: C161102

Units: mg/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Chloride	40.0	42.5	106.3	1			2			3		
				40.0	42.6	106.5	40.0	42.8	107.0	40.0	42.9	107.3
				4			5			6		
				40.0	42.4	106.0	40.0	42.5	106.3			
				7			8			9		
Fluoride	4.00	4.3	107.5	1			2			3		
				4.00	4.3	107.5	4.00	4.3	107.5	4.00	4.4	110.0
				4			5			6		
				4.00	4.3	107.5	4.00	4.2	105.0			
				7			8			9		
Nitrate/Nitrite as N	20.0	21.2	106.0	1			2			3		
				20.0	21.1	105.5	20.0	21.2	106.0	20.0	21.4	107.0
				4			5			6		
				20.0	20.9	104.5	20.0	21.0	105.0			
				7			8			9		
Sulfate as SO4	100	103	103.0	1			2			3		
				100	103	103.0	100	103	103.0	100	104	104.0
				4			5			6		
				100	103	103.0	100	103	103.0			
				7			8			9		

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

**TechLaw, Inc. - ESAT Region 8****Initial and Continuing Calibration Verification Results****ESAT Dionex IC**

Method: EPA 300.0

Analysis Name: WC - Anions by Ion Chromatography 2013

Sequence: 1611066

Work Order: C161102

Units: mg/L

<b>Dissolved Analyte</b>	<b>Initial (ICV1, ICV2)</b>			<b>Continuing Calibration Verification Standards (CCVs)</b>								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Chloride	40.0	42.6	106.5	1			2			3		
				40.0	42.7	106.8	40.0	40.4	101.0			
				4			5			6		
	4.00	4.2	105.0	7			8			9		
				1			2			3		
				4.00	4.3	107.5	4.00	4.1	102.5			
				4			5			6		
				7			8			9		
Fluoride	20.0	21.1	105.5	1			2			3		
				20.0	21.2	106.0	20.0	20.2	101.0			
				4			5			6		
	100	103	103.0	7			8			9		
				1			2			3		
				100	104	104.0	100	97.7	97.7			
				4			5			6		
				7			8			9		

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Diss. Metals

Sequence: 1612065

Work Order: C161102

Units: ug/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Antimony	50.0	51.8	103.6	1			2			3		
				50.0	52.3	104.6	50.0	51.6	103.2	50.0	52.9	105.8
				4			5			6		
				50.0	54.0	108.0	50.0	49.6	99.2	50.0	50.3	100.6
				7			8			9		
Arsenic	50.0	49.8	99.6	1			2			3		
				50.0	50.5	101.0	50.0	50.8	101.6	50.0	51.5	103.0
				4			5			6		
				50.0	52.5	105.0	50.0	49.2	98.4	50.0	48.5	97.0
				7			8			9		
Cadmium	50.0	50.3	100.6	1			2			3		
				50.0	52.6	105.2	50.0	52.9	105.8	50.0	53.4	106.8
				4			5			6		
				50.0	53.4	106.8	50.0	49.6	99.2	50.0	50.4	100.8
				7			8			9		
Chromium	50.0	52.0	104.0	1			2			3		
				50.0	50.6	101.2	50.0	51.6	103.2	50.0	52.2	104.4
				4			5			6		
				50.0	54.0	108.0	50.0	51.6	103.2	50.0	49.3	98.6
				7			8			9		
Copper	50.0	51.7	103.4	1			2			3		
				50.0	51.2	102.4	50.0	51.1	102.2	50.0	51.3	102.6
				4			5			6		
				50.0	52.6	105.2	50.0	51.8	103.6	50.0	49.2	98.4
				7			8			9		
Lead	50.0	50.4	100.8	1			2			3		
				50.0	52.3	104.6	50.0	51.9	103.8	50.0	53.4	106.8
				4			5			6		
				50.0	53.9	107.8	50.0	50.5	101.0	50.0	49.6	99.2
				7			8			9		

TDF #: A-128

**TechLaw, Inc. - ESAT Region 8****Initial and Continuing Calibration Verification Results**

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Diss. Metals

Sequence: 1612065

Work Order: C161102

Units: ug/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Nickel	50.0	51.5	103.0	1			2			3		
				50.0	50.8	101.6	50.0	50.2	100.4	50.0	50.7	101.4
				4			5			6		
				50.0	53.0	106.0	50.0	50.1	100.2	50.0	48.1	96.2
				7			8			9		
Selenium	50.0	52.1	104.2	1			2			3		
				50.0	53.5	107.0	50.0	52.9	105.8	50.0	52.5	105.0
				4			5			6		
				50.0	54.8	109.6	50.0	51.7	103.4	50.0	49.8	99.6
				7			8			9		
Silver	50.0	51.5	103.0	1			2			3		
				50.0	52.6	105.2	50.0	52.4	104.8	50.0	53.5	107.0
				4			5			6		
				50.0	55.0	110.0	50.0	50.2	100.4	50.0	50.4	100.8
				7			8			9		
Thallium	50.0	50.0	100.0	1			2			3		
				50.0	51.9	103.8	50.0	51.3	102.6	50.0	52.3	104.6
				4			5			6		
				50.0	52.9	105.8	50.0	49.6	99.2	50.0	49.0	98.0
				7			8			9		

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPOE - PE Optima

Method: 200.7

Analysis Name: ICPOE Diss. Metals

Sequence: 1612066

Work Order: C161102

Units: ug/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Aluminum	12500	12450	99.6	1			2			3		
				12500	12600	100.8	12500	12660	101.3	12500	12580	100.6
				4			5			6		
				12500	12620	101.0	12500	12550	100.4	12500	12390	99.1
				7			8			9		
				12500	12760	102.1	12500	12560	100.5	12500	12700	101.6
Beryllium	500	510.4	102.1	1			2			3		
				500	501.7	100.3	500	506.4	101.3	500	505.3	101.1
				4			5			6		
				500	510.9	102.2	500	503.7	100.7	500	498.4	99.7
				7			8			9		
				500	506.1	101.2	500	502.9	100.6	500	503.3	100.7
Calcium	12500	12550	100.4	1			2			3		
				12500	12620	101.0	12500	12610	100.9	12500	12580	100.6
				4			5			6		
				12500	12580	100.6	12500	12490	99.9	12500	12230	97.8
				7			8			9		
				12500	12660	101.3	12500	12430	99.4	12500	12490	99.9
Iron	12500	12640	101.1	1			2			3		
				12500	12720	101.8	12500	12680	101.4	12500	12660	101.3
				4			5			6		
				12500	12680	101.4	12500	12610	100.9	12500	12370	99.0
				7			8			9		
				12500	12750	102.0	12500	12610	100.9	12500	12580	100.6
Magnesium	12500	12500	100.0	1			2			3		
				12500	12640	101.1	12500	12670	101.4	12500	12560	100.5
				4			5			6		
				12500	12580	100.6	12500	12530	100.2	12500	12340	98.7
				7			8			9		
				12500	12680	101.4	12500	12440	99.5	12500	12540	100.3
Manganese	1000	1027	102.7	1			2			3		
				1000	1026	102.6	1000	1040	104.0	1000	1022	102.2
				4			5			6		
				1000	1030	103.0	1000	1026	102.6	1000	1016	101.6
				7			8			9		
				1000	1026	102.6	1000	1010	101.0	1000	1031	103.1

TechLaw, Inc. - ESAT Region 8												
Initial and Continuing Calibration Verification Results												
ICPOE - PE Optima			Method: 200.7			Analysis Name: ICPOE Diss. Metals						
Sequence: 1612066			Work Order: C161102			Units: ug/L						
Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Silica (SiO2)	10000	10050	100.5	1			2			3		
				10000	10010	100.1	10000	10140	101.4	10000	10030	100.3
				4			5			6		
				10000	10070	100.7	10000	10070	100.7	10000	9958	99.6
				7			8			9		
				10000	10080	100.8	10000	9913	99.1	10000	10040	100.4
Strontium	500	496.5	99.3	1			2			3		
				500	510.6	102.1	500	518.6	103.7	500	517.9	103.6
				4			5			6		
				500	521.1	104.2	500	524.8	105.0	500	514.0	102.8
				7			8			9		
				500	518.1	103.6	500	508.2	101.6	500	512.7	102.5
Zinc	2500	2553	102.1	1			2			3		
				2500	2562	102.5	2500	2613	104.5	2500	2554	102.2
				4			5			6		
				2500	2586	103.4	2500	2570	102.8	2500	2550	102.0
				7			8			9		
				2500	2554	102.2	2500	2524	101.0	2500	2572	102.9

Metals - ICV & CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPOE - PE Optima

Method: 200.7

Analysis Name: ICPOE Tot. Rec. Metals

Sequence: 1612068

Work Order: C161102

Units: ug/L

Total Recoverable Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Aluminum	12500	12400	99.2	1			2			3		
				12500	12440	99.5	12500	12410	99.3	12500	12460	99.7
				4			5			6		
				12500	12430	99.4	12500	12380	99.0	12500	12350	98.8
				7			8			9		
Beryllium	500	511.9	102.4	1			2			3		
				500	510.1	102.0	500	510.2	102.0	500	503.5	100.7
				4			5			6		
				500	506.0	101.2	500	508.4	101.7	500	506.9	101.4
				7			8			9		
Calcium	12500	12560	100.5	1			2			3		
				12500	12560	100.5	12500	12410	99.3	12500	12360	98.9
				4			5			6		
				12500	12410	99.3	12500	12430	99.4	12500	12400	99.2
				7			8			9		
Iron	12500	12570	100.6	1			2			3		
				12500	12570	100.6	12500	12530	100.2	12500	12520	100.2
				4			5			6		
				12500	12510	100.1	12500	12460	99.7	12500	12440	99.5
				7			8			9		
Magnesium	12500	12460	99.7	1			2			3		
				12500	12500	100.0	12500	12450	99.6	12500	12480	99.8
				4			5			6		
				12500	12460	99.7	12500	12430	99.4	12500	12360	98.9
				7			8			9		
Manganese	1000	1028	102.8	1			2			3		
				1000	1020	102.0	1000	1027	102.7	1000	1010	101.0
				4			5			6		
				1000	1012	101.2	1000	1016	101.6	1000	1013	101.3
				7			8			9		

TechLaw, Inc. - ESAT Region 8																	
Initial and Continuing Calibration Verification Results																	
ICPOE - PE Optima			Method: 200.7			Analysis Name: ICPOE Tot. Rec. Metals											
Sequence: 1612068			Work Order: C161102			Units: ug/L											
<b>Total Recoverable Analyte</b>																	
<b>Initial (ICV1, ICV2)</b>			<b>Continuing Calibration Verification Standards (CCVs)</b>														
True			True	Found	%R	True	Found	%R	True	Found	%R						
Silica (SiO <sub>2</sub> )	10000	10090	100.9	1			2			3							
				10000	10080	100.8	10000	10090	100.9	10000	9977	99.8					
				4			5			6							
				10000	9961	99.6	10000	9983	99.8	10000	9979	99.8					
				7			8			9							
Strontium	500	505.1	101.0	1			2			3							
				500	506.0	101.2	500	510.5	102.1	500	509.9	102.0					
				4			5			6							
				500	514.3	102.9	500	508.9	101.8	500	504.4	100.9					
				7			8			9							
Zinc	2500	2595	103.8	1			2			3							
				2500	2551	102.0	2500	2589	103.6	2500	2535	101.4					
				4			5			6							
				2500	2546	101.8	2500	2574	103.0	2500	2556	102.2					
				7			8			9							

Metals - ICV & CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPOE - PE Optima

Method: 200.7

Analysis Name: ICPOE Tot. Rec. Metals

Sequence: 1612072

Work Order: C161102

Units: ug/L

Total Recoverable Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Aluminum	12500	12710	101.7	1			2			3		
				12500	12530	100.2	12500	12500	100.0	12500	12490	99.9
				4			5			6		
				7			8			9		
Beryllium	500	513.0	102.6	1			2			3		
				500	510.3	102.1	500	507.4	101.5	500	506.8	101.4
				4			5			6		
				7			8			9		
Calcium	12500	12800	102.4	1			2			3		
				12500	12700	101.6	12500	12460	99.7	12500	12500	100.0
				4			5			6		
				7			8			9		
Iron	12500	12830	102.6	1			2			3		
				12500	12730	101.8	12500	12570	100.6	12500	12640	101.1
				4			5			6		
				7			8			9		
Magnesium	12500	12780	102.2	1			2			3		
				12500	12620	101.0	12500	12560	100.5	12500	12580	100.6
				4			5			6		
				7			8			9		
Manganese	1000	1030	103.0	1			2			3		
				1000	1029	102.9	1000	1013	101.3	1000	1021	102.1
				4			5			6		
				7			8			9		

TechLaw, Inc. - ESAT Region 8														
Initial and Continuing Calibration Verification Results														
ICPOE - PE Optima			Method: 200.7			Analysis Name: ICPOE Tot. Rec. Metals								
Sequence: 1612072			Work Order: C161102			Units: ug/L								
<b>Total Recoverable Analyte</b>														
			<b>Initial (ICV1, ICV2)</b>			<b>Continuing Calibration Verification Standards (CCVs)</b>								
			True	Found	%R	True	Found	%R	True	Found	%R			
Silica (SiO <sub>2</sub> )	10000	10100	101.0	1			2			3				
				10000	10040	100.4	10000	9926	99.3	10000	10010	100.1		
				4			5			6				
				7			8			9				
	500	508.2	101.6	1			2			3				
				500	511.4	102.3	500	509.8	102.0	500	509.9	102.0		
				4			5			6				
Strontium														
				7			8			9				
	2500	2583	103.3	1			2			3				
				2500	2583	103.3	2500	2519	100.8	2500	2554	102.2		
				4			5			6				
Zinc														
				7			8			9				

Metals - ICV & CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Diss. Metals

Sequence: 1612075

Work Order: C161102

Units: ug/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Antimony	50.0	49.2	98.4	1			2			3		
				50.0	47.5	95.0	50.0	47.2	94.4	50.0	47.0	94.0
				4			5			6		
				7			8			9		
				1			2			3		
				50.0	47.7	95.4	50.0	47.0	94.0	50.0	48.2	96.4
				4			5			6		
				7			8			9		
				1			2			3		
Arsenic	50.0	47.6	95.2	50.0	48.1	96.2	50.0	48.5	97.0	50.0	49.2	98.4
				4			5			6		
				7			8			9		
				1			2			3		
				50.0	49.1	98.2	50.0	48.3	96.6	50.0	48.9	97.8
				4			5			6		
				7			8			9		
				1			2			3		
				50.0	50.0	100.0	50.0	48.2	96.4	50.0	48.5	97.0
Copper	50.0	49.0	98.0	4			5			6		
				7			8			9		
				1			2			3		
				50.0	48.9	97.8	50.0	49.0	98.0	50.0	49.9	99.8
				4			5			6		
				7			8			9		
				1			2			3		
				50.0	49.0	98.0	50.0	49.0	98.0	50.0	49.9	99.8
				4			5			6		
Lead				7			8			9		

TDF #: A-128

**TechLaw, Inc. - ESAT Region 8****Initial and Continuing Calibration Verification Results**

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Diss. Metals

Sequence: 1612075

Work Order: C161102

Units: ug/L

Dissolved Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)										
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R		
Nickel	50.0	49.1	98.2	1			2			3				
				50.0	48.0	96.0	50.0	47.1	94.2	50.0	47.5	95.0		
				4			5			6				
				7			8			9				
				1			2			3				
				50.0	50.7	101.4	50.0	50.1	100.2	50.0	49.8	99.6		
				4			5			6				
Selenium	50.0	48.9	97.8	7			8			9				
				1			2			3				
				50.0	50.7	101.4	50.0	50.1	100.2	50.0	49.8	99.6		
				4			5			6				
				7			8			9				
				1			2			3				
Silver	50.0	49.7	99.4	50.0	49.4	98.8	50.0	49.0	98.0	50.0	49.6	99.2		
				4			5			6				
				7			8			9				
				1			2			3				
				50.0	48.4	96.8	50.0	48.1	96.2	50.0	49.1	98.2		
				4			5			6				
Thallium	50.0	48.5	97.0	7			8			9				
				1			2			3				
				50.0	48.4	96.8	50.0	48.1	96.2	50.0	49.1	98.2		
				4			5			6				

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Tot. Rec. Metals

Sequence: 1612076

Work Order: C161102

Units: ug/L

Total Recoverable Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Antimony	50.0	49.21	98.4	1			2			3		
				50.0	47.50	95.0	50.0	47.16	94.3	50.0	47.03	94.1
				4			5			6		
				50.0	46.94	93.9	50.0	46.81	93.6	50.0	46.83	93.7
				7			8			9		
Arsenic	50.0	47.56	95.1	1			2			3		
				50.0	47.71	95.4	50.0	47.04	94.1	50.0	48.17	96.3
				4			5			6		
				50.0	47.25	94.5	50.0	47.05	94.1	50.0	47.37	94.7
				7			8			9		
Cadmium	50.0	48.62	97.2	1			2			3		
				50.0	48.10	96.2	50.0	48.45	96.9	50.0	49.24	98.5
				4			5			6		
				50.0	48.93	97.9	50.0	48.67	97.3	50.0	48.99	98.0
				7			8			9		
Chromium	50.0	49.44	98.9	1			2			3		
				50.0	49.12	98.2	50.0	48.27	96.5	50.0	48.89	97.8
				4			5			6		
				50.0	48.98	98.0	50.0	47.59	95.2	50.0	47.85	95.7
				7			8			9		
Copper	50.0	49.99	100.0	1			2			3		
				50.0	48.95	97.9	50.0	48.21	96.4	50.0	48.51	97.0
				4			5			6		
				50.0	47.84	95.7	50.0	48.46	96.9	50.0	47.98	96.0
				7			8			9		
Lead	50.0	48.98	98.0	1			2			3		
				50.0	49.03	98.1	50.0	49.02	98.0	50.0	49.87	99.7
				4			5			6		
				50.0	48.51	97.0	50.0	48.38	96.8	50.0	48.82	97.6
				7			8			9		

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Tot. Rec. Metals

Sequence: 1612076

Work Order: C161102

Units: ug/L

Total Recoverable Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Nickel	50.0	49.14	98.3	1			2			3		
				50.0	47.97	95.9	50.0	47.06	94.1	50.0	47.45	94.9
				4			5			6		
				50.0	47.99	96.0	50.0	47.44	94.9	50.0	46.38	92.8
				7			8			9		
Selenium	50.0	48.87	97.7	1			2			3		
				50.0	50.66	101.3	50.0	50.06	100.1	50.0	49.79	99.6
				4			5			6		
				50.0	49.96	99.9	50.0	50.77	101.5	50.0	49.72	99.4
				7			8			9		
Silver	50.0	49.71	99.4	1			2			3		
				50.0	49.40	98.8	50.0	48.99	98.0	50.0	49.56	99.1
				4			5			6		
				50.0	49.16	98.3	50.0	49.17	98.3	50.0	49.14	98.3
				7			8			9		
Thallium	50.0	48.51	97.0	1			2			3		
				50.0	48.36	96.7	50.0	48.10	96.2	50.0	49.13	98.3
				4			5			6		
				50.0	48.30	96.6	50.0	47.69	95.4	50.0	48.48	97.0
				7			8			9		

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

TDF #: A-128

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Tot. Rec. Metals

Sequence: 1612077

Work Order: C161102

Units: ug/L

Total Recoverable Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Antimony	50.0	48.44	96.9	1			2			3		
				50.0	48.24	96.5	50.0	47.87	95.7	50.0	48.48	97.0
				4			5			6		
				50.0	48.45	96.9	50.0	48.06	96.1	50.0	47.01	94.0
				7			8			9		
Arsenic	50.0	48.52	97.0	1			2			3		
				50.0	47.98	96.0	50.0	49.27	98.5	50.0	48.91	97.8
				4			5			6		
				50.0	48.37	96.7	50.0	49.20	98.4	50.0	48.85	97.7
				7			8			9		
Cadmium	50.0	48.64	97.3	1			2			3		
				50.0	48.70	97.4	50.0	49.25	98.5	50.0	49.06	98.1
				4			5			6		
				50.0	49.10	98.2	50.0	48.64	97.3	50.0	48.83	97.7
				7			8			9		
Chromium	50.0	47.23	94.5	1			2			3		
				50.0	49.12	98.2	50.0	47.80	95.6	50.0	47.67	95.3
				4			5			6		
				50.0	48.02	96.0	50.0	47.29	94.6	50.0	46.89	93.8
				7			8			9		
Copper	50.0	48.19	96.4	1			2			3		
				50.0	49.69	99.4	50.0	47.21	94.4	50.0	47.78	95.6
				4			5			6		
				50.0	47.92	95.8	50.0	46.76	93.5	50.0	46.14	92.3
				7			8			9		
Lead	50.0	47.58	95.2	1			2			3		
				50.0	48.91	97.8	50.0	48.65	97.3	50.0	48.65	97.3
				4			5			6		
				50.0	48.32	96.6	50.0	48.68	97.4	50.0	49.13	98.3
				7			8			9		

## TechLaw, Inc. - ESAT Region 8

## Initial and Continuing Calibration Verification Results

ICPMS-PE DRC-II

Method: 200.8

Analysis Name: ICPMS Tot. Rec. Metals

Sequence: 1612077

Work Order: C161102

Units: ug/L

Total Recoverable Analyte	Initial (ICV1, ICV2)			Continuing Calibration Verification Standards (CCVs)								
	True	Found	%R	True	Found	%R	True	Found	%R	True	Found	%R
Nickel	50.0	46.89	93.8	1			2			3		
				50.0	47.99	96.0	50.0	46.49	93.0	50.0	46.30	92.6
				4			5			6		
				50.0	46.30	92.6	50.0	46.08	92.2	50.0	45.11	90.2
				7			8			9		
Selenium	50.0	50.06	100.1	1			2			3		
				50.0	49.44	98.9	50.0	50.82	101.6	50.0	50.41	100.8
				4			5			6		
				50.0	48.90	97.8	50.0	50.28	100.6	50.0	50.56	101.1
				7			8			9		
Silver	50.0	48.96	97.9	1			2			3		
				50.0	49.33	98.7	50.0	48.21	96.4	50.0	48.57	97.1
				4			5			6		
				50.0	48.89	97.8	50.0	48.94	97.9	50.0	48.66	97.3
				7			8			9		
Thallium	50.0	47.94	95.9	1			2			3		
				50.0	49.53	99.1	50.0	49.02	98.0	50.0	48.67	97.3
				4			5			6		
				50.0	48.99	98.0	50.0	48.58	97.2	50.0	49.29	98.6
				7			8			9		

Metals - ICV &amp; CCV %R Criteria = 90 - 110%, Classical Chemistry %R Criteria - ICV = 90 - 110%R, CCV = 80 - 120%R.

**TechLaw, Inc. - ESAT Region 8**  
**ICP Interference Check Sample**  
**ICPMS-PE DRC-II**

<u>Analyte</u>	<u>Check Sample</u>	<u>Result*</u>	<u>Units</u>	<u>True</u>	<u>%R</u>	<u>PQL</u>
Sequence: 1612065	Analysis: ICPMS Diss. Metals					
Antimony	IFA1	0.1	ug/L			1.00
	IFB1	0.0	ug/L			1.00
Arsenic	IFA1	0.1	ug/L			2.00
	IFB1	20.8	ug/L	20	104	2.00
Cadmium	IFA1	0.1	ug/L			0.200
	IFB1	21.5	ug/L	20	107	0.200
Chromium	IFA1	0.3	ug/L			2.00
	IFB1	21.5	ug/L	20	107	2.00
Copper	IFA1	0.7	ug/L			1.00
	IFB1	21.4	ug/L	20	107	1.00
Lead	IFA1	0.0	ug/L			0.200
	IFB1	0.0	ug/L			0.200
Nickel	IFA1	0.0	ug/L			1.00
	IFB1	20.5	ug/L	20	102	1.00
Selenium	IFA1	-0.2	ug/L			2.00
	IFB1	-0.1	ug/L			2.00
Silver	IFA1	0.0	ug/L			1.00
	IFB1	21.0	ug/L	20	105	1.00
Thallium	IFA1	-0.1	ug/L			2.00
	IFB1	-0.1	ug/L			2.00

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

**TechLaw, Inc. - ESAT Region 8**  
**ICP Interference Check Sample**  
**ICPMS-PE DRC-II**

Analyte	Check Sample	Result*	Units	True	%R	PQL
Sequence: 1612075	Analysis: ICPMS Diss. Metals					
Antimony	IFA1	0.0	ug/L			1.00
	IFB1	0.0	ug/L			1.00
Arsenic	IFA1	-0.1	ug/L			2.00
	IFB1	19.6	ug/L	20	98	2.00
Cadmium	IFA1	0.0	ug/L			0.200
	IFB1	20.6	ug/L	20	103	0.200
Chromium	IFA1	0.3	ug/L			2.00
	IFB1	21.1	ug/L	20	105	2.00
Copper	IFA1	0.5	ug/L			1.00
	IFB1	20.8	ug/L	20	104	1.00
Lead	IFA1	0.0	ug/L			0.200
	IFB1	0.0	ug/L			0.200
Nickel	IFA1	-0.1	ug/L			1.00
	IFB1	20.1	ug/L	20	100	1.00
Selenium	IFA1	-0.1	ug/L			2.00
	IFB1	0.0	ug/L			2.00
Silver	IFA1	0.0	ug/L			1.00
	IFB1	20.0	ug/L	20	100	1.00
Thallium	IFA1	0.0	ug/L			2.00
	IFB1	0.0	ug/L			2.00

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

**TechLaw, Inc. - ESAT Region 8**  
**ICP Interference Check Sample**  
**ICPMS-PE DRC-II**

Analyte	Check Sample	Result*	Units	True	%R	PQL
Sequence: 1612076	Analysis: ICPMS Tot. Rec. Metals					
Antimony	IFA1	0.0	ug/L			1.00
	IFB1	0.0	ug/L			1.00
Arsenic	IFA1	-0.1	ug/L			2.00
	IFB1	19.6	ug/L	20	98	2.00
Cadmium	IFA1	0.0	ug/L			0.200
	IFB1	20.6	ug/L	20	103	0.200
Chromium	IFA1	0.3	ug/L			2.00
	IFB1	21.1	ug/L	20	105	2.00
Copper	IFA1	0.5	ug/L			1.00
	IFB1	20.8	ug/L	20	104	1.00
Lead	IFA1	0.0	ug/L			0.200
	IFB1	0.0	ug/L			0.200
Nickel	IFA1	-0.1	ug/L			1.00
	IFB1	20.1	ug/L	20	100	1.00
Selenium	IFA1	-0.1	ug/L			2.00
	IFB1	0.0	ug/L			2.00
Silver	IFA1	0.0	ug/L			1.00
	IFB1	20.0	ug/L	20	100	1.00
Thallium	IFA1	0.0	ug/L			2.00
	IFB1	0.0	ug/L			2.00

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

**TechLaw, Inc. - ESAT Region 8**  
**ICP Interference Check Sample**  
**ICPMS-PE DRC-II**

Analyte	Check Sample	Result*	Units	True	%R	PQL
Sequence: 1612077	Analysis: ICPMS Tot. Rec. Metals					
Antimony	IFA1	0.1	ug/L			1.00
	IFB1	0.1	ug/L			1.00
Arsenic	IFA1	-0.1	ug/L			2.00
	IFB1	20.1	ug/L	20	100	2.00
Cadmium	IFA1	0.1	ug/L			0.200
	IFB1	20.4	ug/L	20	102	0.200
Chromium	IFA1	0.3	ug/L			2.00
	IFB1	21.0	ug/L	20	105	2.00
Copper	IFA1	0.5	ug/L			1.00
	IFB1	21.1	ug/L	20	105	1.00
Lead	IFA1	0.0	ug/L			0.200
	IFB1	0.0	ug/L			0.200
Nickel	IFA1	-0.1	ug/L			1.00
	IFB1	19.8	ug/L	20	99	1.00
Selenium	IFA1	-0.1	ug/L			2.00
	IFB1	-0.3	ug/L			2.00
Silver	IFA1	0.0	ug/L			1.00
	IFB1	20.0	ug/L	20	100	1.00
Thallium	IFA1	-0.1	ug/L			2.00
	IFB1	-0.1	ug/L			2.00

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

## TechLaw, Inc. - ESAT Region 8

## ICP Interference Check Sample

ICPOE - PE Optima

<u>Analyte</u>	<u>Check Sample</u>	<u>Result*</u>	<u>Units</u>	<u>True</u>	<u>%R</u>	<u>PQL</u>
Sequence: 1612066	Analysis: ICPOE Diss. Metals					
Aluminum	IFA1	61,981.0	ug/L	60,000	103	50.0
	IFB1	61,438.0	ug/L	60,000	102	50.0
Beryllium	IFA1	-0.6	ug/L			5.00
	IFB1	100.1	ug/L	100	100	5.00
Calcium	IFA1	298,885.0	ug/L	300,000	100	250
	IFB1	296,196.8	ug/L	300,000	99	250
Iron	IFA1	236,552.0	ug/L	250,000	95	250
	IFB1	232,793.5	ug/L	250,000	93	250
Magnesium	IFA1	142,262.4	ug/L	150,000	95	250
	IFB1	140,944.5	ug/L	150,000	94	250
Manganese	IFA1	1.0	ug/L			5.00
	IFB1	202.8	ug/L	200	101	5.00
Silica (SiO2)	IFA1	7.6	ug/L			1000
	IFB1	530.9	ug/L	500	106	1000
Strontium	IFA1	-6.2	ug/L			10.0
	IFB1	999.7	ug/L	1,000	100	10.0
Zinc	IFA1	-4.0	ug/L			20.0
	IFB1	286.7	ug/L	300	96	20.0

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

**TechLaw, Inc. - ESAT Region 8**  
**ICP Interference Check Sample**  
**ICPOE - PE Optima**

Analyte	Check Sample	Result*	Units	True	%R	PQL
Sequence: 1612068	Analysis: ICPOE Tot. Rec. Metals					
Aluminum	IFA1	60,243.4	ug/L	60,000	100	50.0
	IFB1	60,751.2	ug/L	60,000	101	50.0
Beryllium	IFA1	-0.5	ug/L			5.00
	IFB1	101.0	ug/L	100	101	5.00
Calcium	IFA1	297,030.6	ug/L	300,000	99	250
	IFB1	299,332.9	ug/L	300,000	100	250
Iron	IFA1	232,819.1	ug/L	250,000	93	250
	IFB1	234,028.7	ug/L	250,000	94	250
Magnesium	IFA1	140,192.7	ug/L	150,000	93	250
	IFB1	140,839.4	ug/L	150,000	94	250
Manganese	IFA1	1.0	ug/L			5.00
	IFB1	202.3	ug/L	200	101	5.00
Silica (SiO2)	IFA1	6.8	ug/L			1000
	IFB1	531.3	ug/L	500	106	1000
Strontium	IFA1	-6.3	ug/L			10.0
	IFB1	1,000.0	ug/L	1,000	100	10.0
Zinc	IFA1	-5.0	ug/L			20.0
	IFB1	292.3	ug/L	300	97	20.0

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

**TechLaw, Inc. - ESAT Region 8**  
**ICP Interference Check Sample**  
**ICPOE - PE Optima**

Analyte	Check Sample	Result*	Units	True	%R	PQL
Sequence: 1612072	Analysis: ICPOE Tot. Rec. Metals					
Aluminum	IFA1	62,274.3	ug/L	60,000	104	50.0
	IFB1	60,957.3	ug/L	60,000	102	50.0
Beryllium	IFA1	-0.5	ug/L			5.00
	IFB1	102.0	ug/L	100	102	5.00
Calcium	IFA1	303,335.2	ug/L	300,000	101	250
	IFB1	298,850.8	ug/L	300,000	100	250
Iron	IFA1	237,204.6	ug/L	250,000	95	250
	IFB1	234,745.9	ug/L	250,000	94	250
Magnesium	IFA1	144,132.9	ug/L	150,000	96	250
	IFB1	141,934.9	ug/L	150,000	95	250
Manganese	IFA1	1.2	ug/L			5.00
	IFB1	204.6	ug/L	200	102	5.00
Silica (SiO2)	IFA1	7.1	ug/L			1000
	IFB1	533.2	ug/L	500	107	1000
Strontium	IFA1	-6.3	ug/L			10.0
	IFB1	997.1	ug/L	1,000	100	10.0
Zinc	IFA1	-5.8	ug/L			20.0
	IFB1	293.2	ug/L	300	98	20.0

\*Criteria = 80-120%R of True Value or +/- PQL

See raw data for complete analyte list and results.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPMS-PE DRC-II**

Metals (Dissolved) by EPA 200/7000 Series Methods

Sequence: 1612065

<u>Analyte</u>	<u>True</u>	<u>Found</u>	<u>%R</u>	<u>Units</u>
Antimony	1.00	1.05	105	ug/L
Arsenic	2.00	2.02	101	ug/L
Cadmium	0.200	0.222	111	ug/L
Chromium	2.00	1.96	98	ug/L
Copper	1.00	1.01	101	ug/L
Lead	0.200	0.186	93	ug/L
Nickel	1.00	0.896	90	ug/L
Selenium	2.00	2.26	113	ug/L
Silver	1.00	0.982	98	ug/L
Thallium	1.00	0.856	86	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPMS-PE DRC-II**

Metals (Dissolved) by EPA 200/7000 Series Methods

Sequence: 1612075

<b><u>Analyte</u></b>	<b><u>True</u></b>	<b><u>Found</u></b>	<b><u>%R</u></b>	<b><u>Units</u></b>
Antimony	1.00	0.931	93	ug/L
Arsenic	2.00	1.73	86	ug/L
Cadmium	0.200	0.179	90	ug/L
Chromium	2.00	1.81	91	ug/L
Copper	1.00	1.18	118	ug/L
Lead	0.200	0.176	88	ug/L
Nickel	1.00	0.954	95	ug/L
Selenium	2.00	2.25	113	ug/L
Silver	1.00	0.928	93	ug/L
Thallium	1.00	0.883	88	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPOE - PE Optima**

Metals (Dissolved) by EPA 200/7000 Series Methods

Sequence: 1612066

<b><u>Analyte</u></b>	<b><u>True</u></b>	<b><u>Found</u></b>	<b><u>%R</u></b>	<b><u>Units</u></b>
Aluminum	100	105.1	105	ug/L
Beryllium	5.00	5.183	104	ug/L
Calcium	250	248.6	99	ug/L
Iron	100	114.2	114	ug/L
Magnesium	1000	1020	102	ug/L
Manganese	10.0	10.75	107	ug/L
Silica (SiO2)	250	259.4	104	ug/L
Strontium	10.0	10.62	106	ug/L
Zinc	50.0	54.06	108	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPMS-PE DRC-II**

Metals (Total Recov) by EPA 200/7000 Series Methods

Sequence: 1612076

<b>Analyte</b>	<b>True</b>	<b>Found</b>	<b>%R</b>	<b>Units</b>
Antimony	1.00	0.9310	93	ug/L
Arsenic	2.00	1.729	86	ug/L
Cadmium	0.200	0.1794	90	ug/L
Chromium	2.00	1.814	91	ug/L
Copper	1.00	1.181	118	ug/L
Lead	0.200	0.1756	88	ug/L
Nickel	1.00	0.9537	95	ug/L
Selenium	2.00	2.252	113	ug/L
Silver	1.00	0.9276	93	ug/L
Thallium	1.00	0.8830	88	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPMS-PE DRC-II**

Metals (Total Recov) by EPA 200/7000 Series Methods

Sequence: 1612077

<b><u>Analyte</u></b>	<b><u>True</u></b>	<b><u>Found</u></b>	<b><u>%R</u></b>	<b><u>Units</u></b>
Antimony	1.00	1.034	103	ug/L
Arsenic	2.00	1.818	91	ug/L
Cadmium	0.200	0.2041	102	ug/L
Chromium	2.00	1.932	97	ug/L
Copper	1.00	1.008	101	ug/L
Lead	0.200	0.1957	98	ug/L
Nickel	1.00	0.9943	99	ug/L
Selenium	2.00	2.201	110	ug/L
Silver	1.00	0.9916	99	ug/L
Thallium	1.00	0.9050	90	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPOE - PE Optima**

Metals (Total Recov) by EPA 200/7000 Series Methods

Sequence: 1612068

<b>Analyte</b>	<b>True</b>	<b>Found</b>	<b>%R</b>	<b>Units</b>
Aluminum	100	104.7	105	ug/L
Beryllium	5.00	5.270	105	ug/L
Calcium	250	210.6	84	ug/L
Iron	100	91.70	92	ug/L
Magnesium	1000	1001	100	ug/L
Manganese	10.0	10.67	107	ug/L
Silica (SiO2)	250	253.1	101	ug/L
Strontium	10.0	10.34	103	ug/L
Zinc	50.0	52.96	106	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

**TechLaw, Inc. - ESAT Region 8**  
**Detection Limit (PQL) Standard**  
**ICPOE - PE Optima**

Metals (Total Recov) by EPA 200/7000 Series Methods

Sequence: 1612072

<b>Analyte</b>	<b>True</b>	<b>Found</b>	<b>%R</b>	<b>Units</b>
Aluminum	100	110.1	110	ug/L
Beryllium	5.00	5.183	104	ug/L
Calcium	250	247.1	99	ug/L
Iron	100	97.37	97	ug/L
Magnesium	1000	996.9	100	ug/L
Manganese	10.0	10.56	106	ug/L
Silica (SiO2)	250	256.4	103	ug/L
Strontium	10.0	10.20	102	ug/L
Zinc	50.0	53.53	107	ug/L

Recovery Control Limits: 70-130% except Pb, Tl, Sb, & Hg at 50-150%. No limits for Al, Ca, Fe, K, Mg & Na.

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: EPA 300.0

Dissolved

Sequence ID#: 1611064

Instrument ID #: ESAT Dionex IC

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1611064-ICV1	Initial Cal Check	11/04/16	07:49
1611064-ICB1	Initial Cal Blank	11/04/16	08:04
1611064-SCV1	Secondary Cal Check	11/04/16	08:19
1611064-IBL1	Instrument Blank	11/04/16	08:34
1611029-BS1	Blank Spike	11/04/16	08:50
1611029-BLK1	Blank	11/04/16	09:05
C161102-01	SS01-SS-00-EPA	11/04/16	09:20
1611029-DUP1	Duplicate	11/04/16	09:35
1611029-MS1	Matrix Spike	11/04/16	09:50
C161102-04	SS02-SS-00-EPA	11/04/16	10:05
C161102-07	SS03-SS-00-EPA	11/04/16	10:20
C161102-10	SS04-SS-00-EPA	11/04/16	10:35
1611064-CCV1	Calibration Check	11/04/16	10:50
1611064-CCB1	Calibration Blank	11/04/16	11:05
C161102-13	SS05-SS-00-EPA	11/04/16	11:20
C161102-16	SS06-SS-00-EPA	11/04/16	11:35
C161102-19	SS07-SS-00-EPA	11/04/16	11:50
C161102-22	SS08-SS-00-EPA	11/04/16	12:06
C161102-25	SS09-SS-00-EPA	11/04/16	12:21
C161102-28	SS10-SS-00-EPA	11/04/16	12:36
1611029-MS2	Matrix Spike	11/04/16	12:51
C161102-31	SS10-SS-30-EPA	11/04/16	13:06
C161102-37	SS12-SS-00-EPA	11/04/16	13:36
1611064-CCV2	Calibration Check	11/04/16	13:51
1611064-CCB2	Calibration Blank	11/04/16	14:06
C161102-40	SS13-SS-00-EPA	11/04/16	14:21
C161102-43	SS14-SS-00-EPA	11/04/16	14:36
C161102-46	SS15-SS-00-EPA	11/04/16	14:51
C161102-49	SS16-SS-00-EPA	11/04/16	15:06
C161102-52	SS17-SS-00-EPA	11/04/16	15:21
C161102-55	SS18-SS-00-EPA	11/04/16	15:37
C161102-58	SS19-SS-00-EPA	11/04/16	15:52
1611064-CCV3	Calibration Check	11/04/16	16:07
1611064-CCB3	Calibration Blank	11/04/16	16:22
1611064-CCV4	Calibration Check	11/09/16	12:28
1611064-CCB4	Calibration Blank	11/09/16	12:43
C161102-34	SS11-SS-00-EPA	11/09/16	14:44
1611064-CCV5	Calibration Check	11/09/16	15:14

**Project Name:** Bonita Peak\_Water 4\_OCT\_2016\_A128

**Certificate of Analysis**

**TDF #:** A-128

**TechLaw Inc., ESAT Region 8**

**INSTRUMENT ANALYSIS SEQUENCE LOG**

**Analytical Method:** EPA 300.0

**Dissolved**

**Sequence ID#:** 1611064

**Instrument ID #:** ESAT Dionex IC

Water

**LSR #:** A-128

<b>Analysis ID</b>	<b>Sample Name</b>	<b>Analysis Date</b>	<b>Analysis Time</b>
1611064-CCB5	Calibration Blank	11/09/16	15:29

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: EPA 300.0

Dissolved

Sequence ID#: 1611065

Instrument ID #: ESAT Dionex IC

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1611065-ICV1	Initial Cal Check	11/04/16	16:07
1611065-ICB1	Initial Cal Blank	11/04/16	16:22
1611065-SCV1	Secondary Cal Check	11/04/16	16:37
1611065-IBL1	Instrument Blank	11/04/16	16:52
1611030-BS1	Blank Spike	11/04/16	17:07
1611030-BLK1	Blank	11/04/16	17:22
C161102-61	SS19-SS-30-EPA	11/04/16	17:37
1611030-DUP1	Duplicate	11/04/16	17:52
1611030-MS1	Matrix Spike	11/04/16	18:07
C161102-64	SS20-SS-00-EPA	11/04/16	18:22
C161102-67	SS21-SS-00-EPA	11/04/16	18:37
C161102-70	SS22-SS-00-EPA	11/04/16	18:53
1611065-CCV1	Calibration Check	11/04/16	19:08
1611065-CCB1	Calibration Blank	11/04/16	19:23
C161102-73	SS23-SS-00-EPA	11/04/16	19:38
C161102-76	SS24-SS-00-EPA	11/04/16	19:53
C161102-79	SS25-SS-00-EPA	11/04/16	20:08
C161102-82	SS26-SS-00-EPA	11/04/16	20:23
C161102-88	SS27-SS-90-EPA	11/04/16	20:53
C161102-91	SS28-SS-00-EPA	11/04/16	21:08
1611030-MS2	Matrix Spike	11/04/16	21:23
C161102-94	SS29-SS-00-EPA	11/04/16	21:38
C161102-97	SS30-SS-00-EPA	11/04/16	21:53
1611065-CCV2	Calibration Check	11/04/16	22:09
1611065-CCB2	Calibration Blank	11/04/16	22:24
C161102-AA	SS31-SS-00-EPA	11/04/16	22:39
C161102-AD	SS32-SS-00-EPA	11/04/16	22:54
C161102-AG	SS33-SS-00-EPA	11/04/16	23:09
C161102-AJ	SS34-SS-00-EPA	11/04/16	23:24
C161102-AM	SS34-SS-30-EPA	11/04/16	23:39
C161102-AP	SS35-SS-00-EPA	11/04/16	23:54
C161102-AS	SS36-SS-00-EPA	11/05/16	00:09
1611065-CCV3	Calibration Check	11/05/16	00:24
1611065-CCB3	Calibration Blank	11/05/16	00:39
1611065-CCV4	Calibration Check	11/07/16	09:27
1611065-CCB4	Calibration Blank	11/07/16	09:43
C161102-85	SS27-SS-00-EPA	11/07/16	09:58
1611065-CCV5	Calibration Check	11/07/16	10:13

**Project Name:** Bonita Peak\_Water 4\_OCT\_2016\_A128

**Certificate of Analysis**

**TDF #:** A-128

**TechLaw Inc., ESAT Region 8**

**INSTRUMENT ANALYSIS SEQUENCE LOG**

**Analytical Method:** EPA 300.0

**Dissolved**

**Sequence ID#:** 1611065

**Instrument ID #:** ESAT Dionex IC

Water

**LSR #:** A-128

<b>Analysis ID</b>	<b>Sample Name</b>	<b>Analysis Date</b>	<b>Analysis Time</b>
1611065-CCB5	Calibration Blank	11/07/16	10:28

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: EPA 300.0

Dissolved

Sequence ID#: 1611066

Instrument ID #: ESAT Dionex IC

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1611066-ICV1	Initial Cal Check	11/07/16	10:13
1611066-ICB1	Initial Cal Blank	11/07/16	10:28
1611066-SCV1	Secondary Cal Check	11/07/16	10:43
1611066-IBL1	Instrument Blank	11/07/16	10:58
1611031-BS1	Blank Spike	11/07/16	11:13
1611031-BLK1	Blank	11/07/16	11:28
C161102-AV	SS37-SS-00-EPA	11/07/16	11:43
1611031-DUP1	Duplicate	11/07/16	11:58
1611031-MS1	Matrix Spike	11/07/16	12:13
C161102-AY	SS38-SS-00-EPA	11/07/16	12:28
C161102-BB	SS39-SS-00-EPA	11/07/16	12:43
C161102-BE	SS40-SS-00-EPA	11/07/16	12:59
1611066-CCV1	Calibration Check	11/07/16	13:14
1611066-CCB1	Calibration Blank	11/07/16	13:29
C161102-BH	SS40-SS-30-EPA	11/07/16	13:44
C161102-BK	SS41-SS-00-EPA	11/07/16	13:59
C161102-BN	SS42-SS-00-EPA	11/07/16	14:14
C161102-BO	SS42-SS-90-EPA	11/07/16	14:29
C161102-BT	SS43-SS-00-EPA	11/07/16	14:44
C161102-BW	SS44-SS-00-EPA	11/07/16	14:59
C161102-BZ	SS45-SS-00-EPA	11/07/16	15:17
1611031-MS2	Matrix Spike	11/07/16	15:32
C161102-CC	SS46-SS-00-EPA	11/07/16	15:47
C161102-CF	SS82-SS-00-EPA	11/07/16	16:02
C161102-CI	SS83-SS-00-EPA	11/07/16	16:47
C161102-CL	SS84-SS-00-EPA	11/07/16	17:02
C161102-CO	SS85-SS-00-EPA	11/07/16	17:18
C161102-CR	SS86-SS-00-EPA	11/07/16	17:33
1611066-CCV2	Calibration Check	11/07/16	22:19
1611066-CCB2	Calibration Blank	11/07/16	22:34

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.8

Dissolved

Sequence ID#: 1612065

Instrument ID #: ICPMS-PE DRC-II

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612065-ICV1	Initial Cal Check	12/12/16	09:26
1612065-SCV1	Secondary Cal Check	12/12/16	09:29
1612065-ICB1	Initial Cal Blank	12/12/16	09:33
1612065-CRL1	Instrument RL Check	12/12/16	09:36
1612065-IFA1	Interference Check A	12/12/16	09:39
1612065-IFB1	Interference Check B	12/12/16	09:43
1612056-BLK1	Blank	12/12/16	09:46
1612056-BS1	Blank Spike	12/12/16	09:49
C161102-03	SS01-SS-00-EPA	12/12/16	09:52
1612056-DUP1	Duplicate	12/12/16	09:55
1612065-SRD1	Serial Dilution	12/12/16	09:58
1612056-MS1	Matrix Spike	12/12/16	10:01
C161102-06	SS02-SS-00-EPA	12/12/16	10:05
1612056-MS2	Matrix Spike	12/12/16	10:08
C161102-09	SS03-SS-00-EPA	12/12/16	10:11
1612065-CCV1	Calibration Check	12/12/16	10:17
1612065-CCB1	Calibration Blank	12/12/16	10:20
C161102-12	SS04-SS-00-EPA	12/12/16	10:24
C161102-15	SS05-SS-00-EPA	12/12/16	10:27
C161102-18	SS06-SS-00-EPA	12/12/16	10:30
C161102-21	SS07-SS-00-EPA	12/12/16	10:33
C161102-24	SS08-SS-00-EPA	12/12/16	10:36
C161102-27	SS09-SS-00-EPA	12/12/16	10:39
C161102-30	SS10-SS-00-EPA	12/12/16	10:42
C161102-33	SS10-SS-30-EPA	12/12/16	10:45
C161102-36	SS11-SS-00-EPA	12/12/16	10:48
1612065-CCV2	Calibration Check	12/12/16	10:54
1612065-CCB2	Calibration Blank	12/12/16	10:58
C161102-39	SS12-SS-00-EPA	12/12/16	11:01
C161102-42	SS13-SS-00-EPA	12/12/16	11:04
C161102-45	SS14-SS-00-EPA	12/12/16	11:07
C161102-48	SS15-SS-00-EPA	12/12/16	11:10
C161102-51	SS16-SS-00-EPA	12/12/16	11:13
C161102-54	SS17-SS-00-EPA	12/12/16	11:16
C161102-57	SS18-SS-00-EPA	12/12/16	11:20
C161102-60	SS19-SS-00-EPA	12/12/16	11:23
1612065-CCV3	Calibration Check	12/12/16	11:29
1612065-CCB3	Calibration Blank	12/12/16	11:32

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.8

Dissolved

Sequence ID#: 1612065

Instrument ID #: ICPMS-PE DRC-II

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612059-BLK1	Blank	12/12/16	11:37
1612059-BS1	Blank Spike	12/12/16	11:40
C161102-63	SS19-SS-30-EPA	12/12/16	11:43
1612059-DUP1	Duplicate	12/12/16	11:46
1612065-SRD2	Serial Dilution	12/12/16	11:49
1612059-MS1	Matrix Spike	12/12/16	11:52
C161102-66	SS20-SS-00-EPA	12/12/16	11:55
1612059-MS2	Matrix Spike	12/12/16	11:59
C161102-69	SS21-SS-00-EPA	12/12/16	12:02
1612065-CCV4	Calibration Check	12/12/16	12:15
1612065-CCB4	Calibration Blank	12/12/16	12:18
C161102-72	SS22-SS-00-EPA	12/12/16	12:21
C161102-75	SS23-SS-00-EPA	12/12/16	12:24
C161102-78	SS24-SS-00-EPA	12/12/16	12:28
C161102-81	SS25-SS-00-EPA	12/12/16	12:31
C161102-84	SS26-SS-00-EPA	12/12/16	12:34
C161102-87	SS27-SS-00-EPA	12/12/16	12:37
C161102-90	SS27-SS-90-EPA	12/12/16	12:40
C161102-93	SS28-SS-00-EPA	12/12/16	12:43
C161102-96	SS29-SS-00-EPA	12/12/16	12:46
1612065-CCV5	Calibration Check	12/12/16	12:52
1612065-CCB5	Calibration Blank	12/12/16	12:56
C161102-99	SS30-SS-00-EPA	12/12/16	12:59
C161102-AC	SS31-SS-00-EPA	12/12/16	13:02
C161102-AF	SS32-SS-00-EPA	12/12/16	13:05
C161102-AI	SS33-SS-00-EPA	12/12/16	13:08
C161102-AL	SS34-SS-00-EPA	12/12/16	13:11
C161102-AO	SS34-SS-30-EPA	12/12/16	13:14
C161102-AR	SS35-SS-00-EPA	12/12/16	13:17
C161102-AU	SS36-SS-00-EPA	12/12/16	13:20
1612065-CCV6	Calibration Check	12/12/16	13:27
1612065-CCB6	Calibration Blank	12/12/16	13:30

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.7

Dissolved

Sequence ID#: 1612066

Instrument ID #: ICPOE - PE Optima

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612066-ICV1	Initial Cal Check	12/12/16	08:02
1612066-SCV1	Secondary Cal Check	12/12/16	08:06
1612066-ICB1	Initial Cal Blank	12/12/16	08:09
1612066-CRL1	Instrument RL Check	12/12/16	08:12
1612066-IFA1	Interference Check A	12/12/16	08:15
1612066-IFB1	Interference Check B	12/12/16	08:18
1612055-BLK1	Blank	12/12/16	08:22
1612055-BS1	Blank Spike	12/12/16	08:26
C161102-03	SS01-SS-00-EPA	12/12/16	08:29
1612055-DUP1	Duplicate	12/12/16	08:32
1612066-SRD1	Serial Dilution	12/12/16	08:35
1612055-MS1	Matrix Spike	12/12/16	08:38
C161102-06	SS02-SS-00-EPA	12/12/16	08:41
1612055-MS2	Matrix Spike	12/12/16	08:44
C161102-09	SS03-SS-00-EPA	12/12/16	08:47
1612066-CCV1	Calibration Check	12/12/16	08:53
1612066-CCB1	Calibration Blank	12/12/16	08:56
C161102-12	SS04-SS-00-EPA	12/12/16	08:59
C161102-15	SS05-SS-00-EPA	12/12/16	09:02
C161102-18	SS06-SS-00-EPA	12/12/16	09:05
C161102-21	SS07-SS-00-EPA	12/12/16	09:08
C161102-24	SS08-SS-00-EPA	12/12/16	09:12
C161102-27	SS09-SS-00-EPA	12/12/16	09:15
C161102-30	SS10-SS-00-EPA	12/12/16	09:18
C161102-33	SS10-SS-30-EPA	12/12/16	09:21
C161102-36	SS11-SS-00-EPA	12/12/16	09:24
1612066-CCV2	Calibration Check	12/12/16	09:30
1612066-CCB2	Calibration Blank	12/12/16	09:33
C161102-39	SS12-SS-00-EPA	12/12/16	09:36
C161102-42	SS13-SS-00-EPA	12/12/16	09:39
C161102-45	SS14-SS-00-EPA	12/12/16	09:43
C161102-48	SS15-SS-00-EPA	12/12/16	09:46
C161102-51	SS16-SS-00-EPA	12/12/16	09:49
C161102-54	SS17-SS-00-EPA	12/12/16	09:52
C161102-57	SS18-SS-00-EPA	12/12/16	09:55
C161102-60	SS19-SS-00-EPA	12/12/16	09:58
1612066-CCV3	Calibration Check	12/12/16	10:04
1612066-CCB3	Calibration Blank	12/12/16	10:07

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.7

Dissolved

Sequence ID#: 1612066

Instrument ID #: ICPOE - PE Optima

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612058-BS1	Blank Spike	12/12/16	10:15
C161102-63	SS19-SS-30-EPA	12/12/16	10:19
1612058-DUP1	Duplicate	12/12/16	10:22
1612066-SRD2	Serial Dilution	12/12/16	10:25
1612058-MS1	Matrix Spike	12/12/16	10:28
C161102-66	SS20-SS-00-EPA	12/12/16	10:31
1612058-MS2	Matrix Spike	12/12/16	10:34
C161102-69	SS21-SS-00-EPA	12/12/16	10:38
1612058-BLK1	Blank	12/12/16	10:41
1612066-CCV4	Calibration Check	12/12/16	10:44
1612066-CCB4	Calibration Blank	12/12/16	10:47
C161102-72	SS22-SS-00-EPA	12/12/16	10:50
C161102-75	SS23-SS-00-EPA	12/12/16	10:53
C161102-78	SS24-SS-00-EPA	12/12/16	10:56
C161102-81	SS25-SS-00-EPA	12/12/16	10:59
C161102-84	SS26-SS-00-EPA	12/12/16	11:02
C161102-87	SS27-SS-00-EPA	12/12/16	11:05
C161102-90	SS27-SS-90-EPA	12/12/16	11:08
C161102-93	SS28-SS-00-EPA	12/12/16	11:11
C161102-96	SS29-SS-00-EPA	12/12/16	11:15
1612066-CCV5	Calibration Check	12/12/16	11:21
1612066-CCB5	Calibration Blank	12/12/16	11:24
C161102-99	SS30-SS-00-EPA	12/12/16	11:27
C161102-AC	SS31-SS-00-EPA	12/12/16	11:30
C161102-AF	SS32-SS-00-EPA	12/12/16	11:33
C161102-AI	SS33-SS-00-EPA	12/12/16	11:36
C161102-AL	SS34-SS-00-EPA	12/12/16	11:39
C161102-AO	SS34-SS-30-EPA	12/12/16	11:42
C161102-AR	SS35-SS-00-EPA	12/12/16	11:45
C161102-AU	SS36-SS-00-EPA	12/12/16	11:48
1612066-CCV6	Calibration Check	12/12/16	11:54
1612066-CCB6	Calibration Blank	12/12/16	11:58
1612061-BLK1	Blank	12/12/16	12:03
1612061-BS1	Blank Spike	12/12/16	12:06
C161102-AX	SS37-SS-00-EPA	12/12/16	12:10
1612061-DUP1	Duplicate	12/12/16	12:13
1612066-SRD3	Serial Dilution	12/12/16	12:16
1612061-MS1	Matrix Spike	12/12/16	12:19

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.7

Dissolved

Sequence ID#: 1612066

Instrument ID #: ICPOE - PE Optima

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
C161102-BA	SS38-SS-00-EPA	12/12/16	12:22
1612061-MS2	Matrix Spike	12/12/16	12:25
C161102-BD	SS39-SS-00-EPA	12/12/16	12:28
1612066-CCV7	Calibration Check	12/12/16	12:34
1612066-CCB7	Calibration Blank	12/12/16	12:38
C161102-BG	SS40-SS-00-EPA	12/12/16	12:41
C161102-BJ	SS40-SS-30-EPA	12/12/16	12:44
C161102-BM	SS41-SS-00-EPA	12/12/16	12:47
C161102-BP	SS42-SS-00-EPA	12/12/16	12:50
C161102-BS	SS42-SS-90-EPA	12/12/16	12:53
C161102-BV	SS43-SS-00-EPA	12/12/16	12:56
C161102-BY	SS44-SS-00-EPA	12/12/16	12:59
C161102-CB	SS45-SS-00-EPA	12/12/16	13:03
C161102-CE	SS46-SS-00-EPA	12/12/16	13:05
1612066-CCV8	Calibration Check	12/12/16	13:12
1612066-CCB8	Calibration Blank	12/12/16	13:15
C161102-CH	SS82-SS-00-EPA	12/12/16	13:18
C161102-CK	SS83-SS-00-EPA	12/12/16	13:20
C161102-CN	SS84-SS-00-EPA	12/12/16	13:23
C161102-CO	SS85-SS-00-EPA	12/12/16	13:26
C161102-CT	SS86-SS-00-EPA	12/12/16	13:31
1612066-CCV9	Calibration Check	12/12/16	13:41
1612066-CCB9	Calibration Blank	12/12/16	13:44

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.7

Total Recoverable

Sequence ID#: 1612068

Instrument ID #: ICPOE - PE Optima

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612068-ICV1	Initial Cal Check	12/13/16	07:50
1612068-SCV1	Secondary Cal Check	12/13/16	07:53
1612068-ICB1	Initial Cal Blank	12/13/16	07:56
1612068-CRL1	Instrument RL Check	12/13/16	08:00
1612068-IFA1	Interference Check A	12/13/16	08:02
1612068-IFB1	Interference Check B	12/13/16	08:06
1612018-BLK1	Blank	12/13/16	08:10
1612018-SRM1	Reference	12/13/16	08:13
C161102-02	SS01-SS-00-EPA	12/13/16	08:16
1612018-DUP1	Duplicate	12/13/16	08:19
1612068-SRD1	Serial Dilution	12/13/16	08:22
1612018-MS1	Matrix Spike	12/13/16	08:25
C161102-05	SS02-SS-00-EPA	12/13/16	08:29
1612018-MS3	Matrix Spike	12/13/16	08:32
C161102-08	SS03-SS-00-EPA	12/13/16	08:35
1612068-CCV1	Calibration Check	12/13/16	08:41
1612068-CCB1	Calibration Blank	12/13/16	08:44
C161102-11	SS04-SS-00-EPA	12/13/16	08:47
C161102-14	SS05-SS-00-EPA	12/13/16	08:50
C161102-17	SS06-SS-00-EPA	12/13/16	08:53
C161102-20	SS07-SS-00-EPA	12/13/16	08:56
C161102-23	SS08-SS-00-EPA	12/13/16	08:59
C161102-26	SS09-SS-00-EPA	12/13/16	09:02
C161102-29	SS10-SS-00-EPA	12/13/16	09:06
C161102-32	SS10-SS-30-EPA	12/13/16	09:09
C161102-35	SS11-SS-00-EPA	12/13/16	09:12
1612068-CCV2	Calibration Check	12/13/16	09:18
1612068-CCB2	Calibration Blank	12/13/16	09:21
C161102-38	SS12-SS-00-EPA	12/13/16	09:24
C161102-41	SS13-SS-00-EPA	12/13/16	09:27
C161102-44	SS14-SS-00-EPA	12/13/16	09:30
C161102-47	SS15-SS-00-EPA	12/13/16	09:33
C161102-50	SS16-SS-00-EPA	12/13/16	09:37
C161102-53	SS17-SS-00-EPA	12/13/16	09:40
C161102-56	SS18-SS-00-EPA	12/13/16	09:43
1612068-CCV3	Calibration Check	12/13/16	09:49
1612068-CCB3	Calibration Blank	12/13/16	09:52
1612019-BLK1	Blank	12/13/16	09:57

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.7

Total Recoverable

Sequence ID#: 1612068

Instrument ID #: ICPOE - PE Optima

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612019-SRM1	Reference	12/13/16	10:00
C161102-59	SS19-SS-00-EPA	12/13/16	10:03
1612019-DUP1	Duplicate	12/13/16	10:06
1612068-SRD2	Serial Dilution	12/13/16	10:10
1612019-MS1	Matrix Spike	12/13/16	10:13
C161102-62	SS19-SS-30-EPA	12/13/16	10:16
1612019-MS3	Matrix Spike	12/13/16	10:19
C161102-65	SS20-SS-00-EPA	12/13/16	10:22
1612068-CCV4	Calibration Check	12/13/16	10:28
1612068-CCB4	Calibration Blank	12/13/16	10:31
C161102-68	SS21-SS-00-EPA	12/13/16	10:34
C161102-71	SS22-SS-00-EPA	12/13/16	10:37
C161102-74	SS23-SS-00-EPA	12/13/16	10:40
C161102-77	SS24-SS-00-EPA	12/13/16	10:43
C161102-80	SS25-SS-00-EPA	12/13/16	10:47
C161102-83	SS26-SS-00-EPA	12/13/16	10:50
C161102-86	SS27-SS-00-EPA	12/13/16	10:52
C161102-89	SS27-SS-90-EPA	12/13/16	10:56
C161102-92	SS28-SS-00-EPA	12/13/16	10:59
1612068-CCV5	Calibration Check	12/13/16	11:05
1612068-CCB5	Calibration Blank	12/13/16	11:08
C161102-95	SS29-SS-00-EPA	12/13/16	11:11
C161102-98	SS30-SS-00-EPA	12/13/16	11:14
C161102-AB	SS31-SS-00-EPA	12/13/16	11:17
C161102-AE	SS32-SS-00-EPA	12/13/16	11:20
C161102-AH	SS33-SS-00-EPA	12/13/16	11:24
C161102-AK	SS34-SS-00-EPA	12/13/16	11:27
1612068-CCV6	Calibration Check	12/13/16	11:36
1612068-CCB6	Calibration Blank	12/13/16	11:39

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.7

Total Recoverable

Sequence ID#: 1612072

Instrument ID #: ICPOE - PE Optima

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612072-ICV1	Initial Cal Check	12/14/16	09:17
1612072-SCV1	Secondary Cal Check	12/14/16	09:20
1612072-ICB1	Initial Cal Blank	12/14/16	09:24
1612072-CRL1	Instrument RL Check	12/14/16	09:27
1612072-IFA1	Interference Check A	12/14/16	09:29
1612072-IFB1	Interference Check B	12/14/16	09:33
1612040-BLK1	Blank	12/14/16	09:37
1612040-SRM1	Reference	12/14/16	09:40
C161102-AN	SS34-SS-30-EPA	12/14/16	09:43
1612040-DUP1	Duplicate	12/14/16	09:46
1612072-SRD1	Serial Dilution	12/14/16	09:49
1612040-MS1	Matrix Spike	12/14/16	09:53
C161102-AO	SS35-SS-00-EPA	12/14/16	09:56
1612040-MS3	Matrix Spike	12/14/16	09:59
C161102-AT	SS36-SS-00-EPA	12/14/16	10:02
1612072-CCV1	Calibration Check	12/14/16	10:08
1612072-CCB1	Calibration Blank	12/14/16	10:11
C161102-AW	SS37-SS-00-EPA	12/14/16	10:14
C161102-AZ	SS38-SS-00-EPA	12/14/16	10:18
C161102-BC	SS39-SS-00-EPA	12/14/16	10:21
C161102-BF	SS40-SS-00-EPA	12/14/16	10:24
C161102-BI	SS40-SS-30-EPA	12/14/16	10:27
C161102-BL	SS41-SS-00-EPA	12/14/16	10:30
C161102-BO	SS42-SS-00-EPA	12/14/16	10:33
C161102-BR	SS42-SS-90-EPA	12/14/16	10:36
C161102-BU	SS43-SS-00-EPA	12/14/16	10:39
1612072-CCV2	Calibration Check	12/14/16	10:45
1612072-CCB2	Calibration Blank	12/14/16	10:49
C161102-BX	SS44-SS-00-EPA	12/14/16	10:52
C161102-CA	SS45-SS-00-EPA	12/14/16	10:55
C161102-CD	SS46-SS-00-EPA	12/14/16	10:58
C161102-CG	SS82-SS-00-EPA	12/14/16	11:01
C161102-CJ	SS83-SS-00-EPA	12/14/16	11:04
C161102-CM	SS84-SS-00-EPA	12/14/16	11:06
C161102-CP	SS85-SS-00-EPA	12/14/16	11:09
C161102-CS	SS86-SS-00-EPA	12/14/16	11:14
1612072-CCV3	Calibration Check	12/14/16	11:20
1612072-CCB3	Calibration Blank	12/14/16	11:23

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.8

Dissolved

Sequence ID#: 1612075

Instrument ID #: ICPMS-PE DRC-II

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612075-ICV1	Initial Cal Check	12/13/16	11:58
1612075-SCV1	Secondary Cal Check	12/13/16	12:02
1612075-ICB1	Initial Cal Blank	12/13/16	12:05
1612075-CRL1	Instrument RL Check	12/13/16	12:08
1612075-IFA1	Interference Check A	12/13/16	12:12
1612075-IFB1	Interference Check B	12/13/16	12:15
1612062-BLK1	Blank	12/13/16	12:18
1612062-BS1	Blank Spike	12/13/16	12:21
C161102-AX	SS37-SS-00-EPA	12/13/16	12:24
1612062-DUP1	Duplicate	12/13/16	12:27
1612075-SRD1	Serial Dilution	12/13/16	12:30
1612062-MS1	Matrix Spike	12/13/16	12:34
C161102-BA	SS38-SS-00-EPA	12/13/16	12:37
1612062-MS2	Matrix Spike	12/13/16	12:40
C161102-BD	SS39-SS-00-EPA	12/13/16	12:43
1612075-CCV1	Calibration Check	12/13/16	12:49
1612075-CCB1	Calibration Blank	12/13/16	12:52
C161102-BG	SS40-SS-00-EPA	12/13/16	12:56
C161102-BJ	SS40-SS-30-EPA	12/13/16	12:59
C161102-BM	SS41-SS-00-EPA	12/13/16	13:02
C161102-BP	SS42-SS-00-EPA	12/13/16	13:05
C161102-BS	SS42-SS-90-EPA	12/13/16	13:08
C161102-BV	SS43-SS-00-EPA	12/13/16	13:11
C161102-BY	SS44-SS-00-EPA	12/13/16	13:14
C161102-CB	SS45-SS-00-EPA	12/13/16	13:17
C161102-CE	SS46-SS-00-EPA	12/13/16	13:20
1612075-CCV2	Calibration Check	12/13/16	13:26
1612075-CCB2	Calibration Blank	12/13/16	13:30
C161102-CH	SS82-SS-00-EPA	12/13/16	13:33
C161102-CK	SS83-SS-00-EPA	12/13/16	13:36
C161102-CN	SS84-SS-00-EPA	12/13/16	13:39
C161102-CO	SS85-SS-00-EPA	12/13/16	13:42
C161102-CT	SS86-SS-00-EPA	12/13/16	13:45
1612075-CCV3	Calibration Check	12/13/16	13:52
1612075-CCB3	Calibration Blank	12/13/16	13:55

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.8

Total Recoverable

Sequence ID#: 1612076

Instrument ID #: ICPMS-PE DRC-II

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612076-ICV1	Initial Cal Check	12/13/16	11:58
1612076-SCV1	Secondary Cal Check	12/13/16	12:02
1612076-ICB1	Initial Cal Blank	12/13/16	12:05
1612076-CRL1	Instrument RL Check	12/13/16	12:08
1612076-IFA1	Interference Check A	12/13/16	12:12
1612076-IFB1	Interference Check B	12/13/16	12:15
1612076-CCV1	Calibration Check	12/13/16	12:49
1612076-CCB1	Calibration Blank	12/13/16	12:52
1612076-CCV2	Calibration Check	12/13/16	13:26
1612076-CCB2	Calibration Blank	12/13/16	13:30
1612076-CCV3	Calibration Check	12/13/16	13:52
1612076-CCB3	Calibration Blank	12/13/16	13:55
1612018-BLK2	Blank	12/13/16	14:01
C161102-02	SS01-SS-00-EPA	12/13/16	14:04
1612018-DUP2	Duplicate	12/13/16	14:07
1612076-SRD1	Serial Dilution	12/13/16	14:10
1612018-SRM2	Reference	12/13/16	14:13
1612018-MS2	Matrix Spike	12/13/16	14:16
C161102-05	SS02-SS-00-EPA	12/13/16	14:19
1612018-MS4	Matrix Spike	12/13/16	14:22
C161102-08	SS03-SS-00-EPA	12/13/16	14:26
1612076-CCV4	Calibration Check	12/13/16	14:32
1612076-CCB4	Calibration Blank	12/13/16	14:35
C161102-11	SS04-SS-00-EPA	12/13/16	14:38
C161102-14	SS05-SS-00-EPA	12/13/16	14:41
C161102-17	SS06-SS-00-EPA	12/13/16	14:45
C161102-20	SS07-SS-00-EPA	12/13/16	14:48
C161102-23	SS08-SS-00-EPA	12/13/16	14:51
C161102-26	SS09-SS-00-EPA	12/13/16	14:54
C161102-29	SS10-SS-00-EPA	12/13/16	14:57
C161102-32	SS10-SS-30-EPA	12/13/16	15:00
C161102-35	SS11-SS-00-EPA	12/13/16	15:03
1612076-CCV5	Calibration Check	12/13/16	15:09
1612076-CCB5	Calibration Blank	12/13/16	15:12
C161102-38	SS12-SS-00-EPA	12/13/16	15:16
C161102-41	SS13-SS-00-EPA	12/13/16	15:19
C161102-44	SS14-SS-00-EPA	12/13/16	15:22
C161102-47	SS15-SS-00-EPA	12/13/16	15:25

**Project Name:** Bonita Peak\_Water 4\_OCT\_2016\_A128

**Certificate of Analysis**

**TDF #:**

A-128

**TechLaw Inc., ESAT Region 8**

**INSTRUMENT ANALYSIS SEQUENCE LOG**

**Analytical Method:** 200.8

**Total Recoverable**

**Sequence ID#:** 1612076

**Instrument ID #:** ICPMS-PE DRC-II

**Water**

**LSR #:** A-128

<b>Analysis ID</b>	<b>Sample Name</b>	<b>Analysis Date</b>	<b>Analysis Time</b>
C161102-50	SS16-SS-00-EPA	12/13/16	15:28
C161102-53	SS17-SS-00-EPA	12/13/16	15:31
C161102-56	SS18-SS-00-EPA	12/13/16	15:34
1612076-CCV6	Calibration Check	12/13/16	15:41
1612076-CCB6	Calibration Blank	12/13/16	15:44

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.8

Total Recoverable

Sequence ID#: 1612077

Instrument ID #: ICPMS-PE DRC-II

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612077-ICV1	Initial Cal Check	12/14/16	09:58
1612077-SCV1	Secondary Cal Check	12/14/16	10:01
1612077-ICB1	Initial Cal Blank	12/14/16	10:05
1612077-CRL1	Instrument RL Check	12/14/16	10:08
1612077-IFA1	Interference Check A	12/14/16	10:11
1612077-IFB1	Interference Check B	12/14/16	10:15
1612019-BLK2	Blank	12/14/16	10:18
C161102-59	SS19-SS-00-EPA	12/14/16	10:21
1612019-DUP2	Duplicate	12/14/16	10:24
1612077-SRD1	Serial Dilution	12/14/16	10:27
1612019-SRM2	Reference	12/14/16	10:30
1612019-MS2	Matrix Spike	12/14/16	10:33
C161102-62	SS19-SS-30-EPA	12/14/16	10:36
1612019-MS4	Matrix Spike	12/14/16	10:40
C161102-65	SS20-SS-00-EPA	12/14/16	10:43
1612077-CCV1	Calibration Check	12/14/16	10:49
1612077-CCB1	Calibration Blank	12/14/16	10:52
C161102-68	SS21-SS-00-EPA	12/14/16	10:55
C161102-71	SS22-SS-00-EPA	12/14/16	10:59
C161102-74	SS23-SS-00-EPA	12/14/16	11:02
C161102-77	SS24-SS-00-EPA	12/14/16	11:05
C161102-80	SS25-SS-00-EPA	12/14/16	11:08
C161102-83	SS26-SS-00-EPA	12/14/16	11:11
C161102-86	SS27-SS-00-EPA	12/14/16	11:14
C161102-89	SS27-SS-90-EPA	12/14/16	11:17
C161102-92	SS28-SS-00-EPA	12/14/16	11:20
1612077-CCV2	Calibration Check	12/14/16	11:26
1612077-CCB2	Calibration Blank	12/14/16	11:30
C161102-95	SS29-SS-00-EPA	12/14/16	11:33
C161102-98	SS30-SS-00-EPA	12/14/16	11:36
C161102-AB	SS31-SS-00-EPA	12/14/16	11:39
C161102-AE	SS32-SS-00-EPA	12/14/16	11:42
C161102-AH	SS33-SS-00-EPA	12/14/16	11:45
C161102-AK	SS34-SS-00-EPA	12/14/16	11:48
1612077-CCV3	Calibration Check	12/14/16	11:55
1612077-CCB3	Calibration Blank	12/14/16	11:58
1612040-BLK2	Blank	12/14/16	12:04
C161102-AN	SS34-SS-30-EPA	12/14/16	12:07

## TechLaw Inc., ESAT Region 8

## INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 200.8

Total Recoverable

Sequence ID#: 1612077

Instrument ID #: ICPMS-PE DRC-II

Water

LSR #: A-128

Analysis ID	Sample Name	Analysis Date	Analysis Time
1612040-DUP2	Duplicate	12/14/16	12:10
1612077-SRD2	Serial Dilution	12/14/16	12:13
1612040-SRM2	Reference	12/14/16	12:16
1612040-MS2	Matrix Spike	12/14/16	12:19
C161102-AO	SS35-SS-00-EPA	12/14/16	12:22
1612040-MS4	Matrix Spike	12/14/16	12:25
C161102-AT	SS36-SS-00-EPA	12/14/16	12:28
1612077-CCV4	Calibration Check	12/14/16	12:34
1612077-CCB4	Calibration Blank	12/14/16	12:38
C161102-AW	SS37-SS-00-EPA	12/14/16	12:41
C161102-AZ	SS38-SS-00-EPA	12/14/16	12:44
C161102-BC	SS39-SS-00-EPA	12/14/16	12:47
C161102-BF	SS40-SS-00-EPA	12/14/16	12:50
C161102-BI	SS40-SS-30-EPA	12/14/16	12:53
C161102-BL	SS41-SS-00-EPA	12/14/16	12:56
C161102-BO	SS42-SS-00-EPA	12/14/16	12:59
C161102-BR	SS42-SS-90-EPA	12/14/16	13:03
C161102-BU	SS43-SS-00-EPA	12/14/16	13:06
1612077-CCV5	Calibration Check	12/14/16	13:12
1612077-CCB5	Calibration Blank	12/14/16	13:15
C161102-BX	SS44-SS-00-EPA	12/14/16	13:18
C161102-CA	SS45-SS-00-EPA	12/14/16	13:22
C161102-CD	SS46-SS-00-EPA	12/14/16	13:25
C161102-CG	SS82-SS-00-EPA	12/14/16	13:28
C161102-CJ	SS83-SS-00-EPA	12/14/16	13:31
C161102-CM	SS84-SS-00-EPA	12/14/16	13:34
C161102-CP	SS85-SS-00-EPA	12/14/16	13:37
C161102-CS	SS86-SS-00-EPA	12/14/16	13:40
1612077-CCV6	Calibration Check	12/14/16	13:46
1612077-CCB6	Calibration Blank	12/14/16	13:50